US 20070224644A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0224644 A1**

Liotta et al. (43) **Pub. Date: Sep. 27, 2007**

(54) **OCULAR FLUID MARKERS**

(76) Inventors: **Lance A. Liotta**, Bethesda, MD (US); **Weidong Zhou**, Manassas, VA (US); **Virginia Espina**, Rockville, MD (US); **Emanuel Petricoin**, Gainesville, VA (US)

Correspondence Address:
MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
2200 CLARENDON BLVD.
SUITE 1400
ARLINGTON, VA 22201 (US)

(21) Appl. No.: **11/698,998**

(22) Filed: **Jan. 29, 2007**

Related U.S. Application Data

(60) Provisional application No. 60/762,499, filed on Jan. 27, 2006.

Publication Classification

(51) **Int. Cl.**

G01N 33/53	(2006.01)
C12Q 1/48	(2006.01)
G06F 19/00	(2006.01)
A61M 31/00	(2006.01)

(52) **U.S. Cl.** **435/7.1**; 435/15; 604/500; 702/19

(57) **ABSTRACT**

The present invention relates to the analysis and monitoring of ocular fluids for determining the physiological state of an organism, to monitor drug efficacy and dynamics, for early disease detection, as well as to certain molecular markers and fingerprints of identified molecules or molecule fragments in such analysis.

FIG 1.

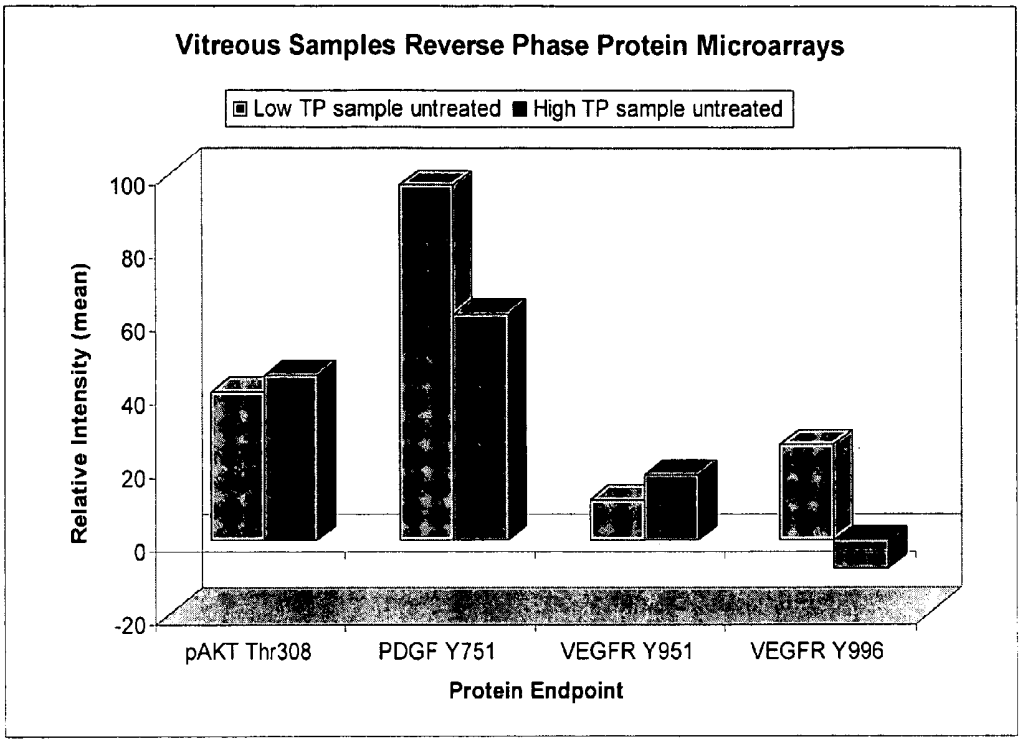
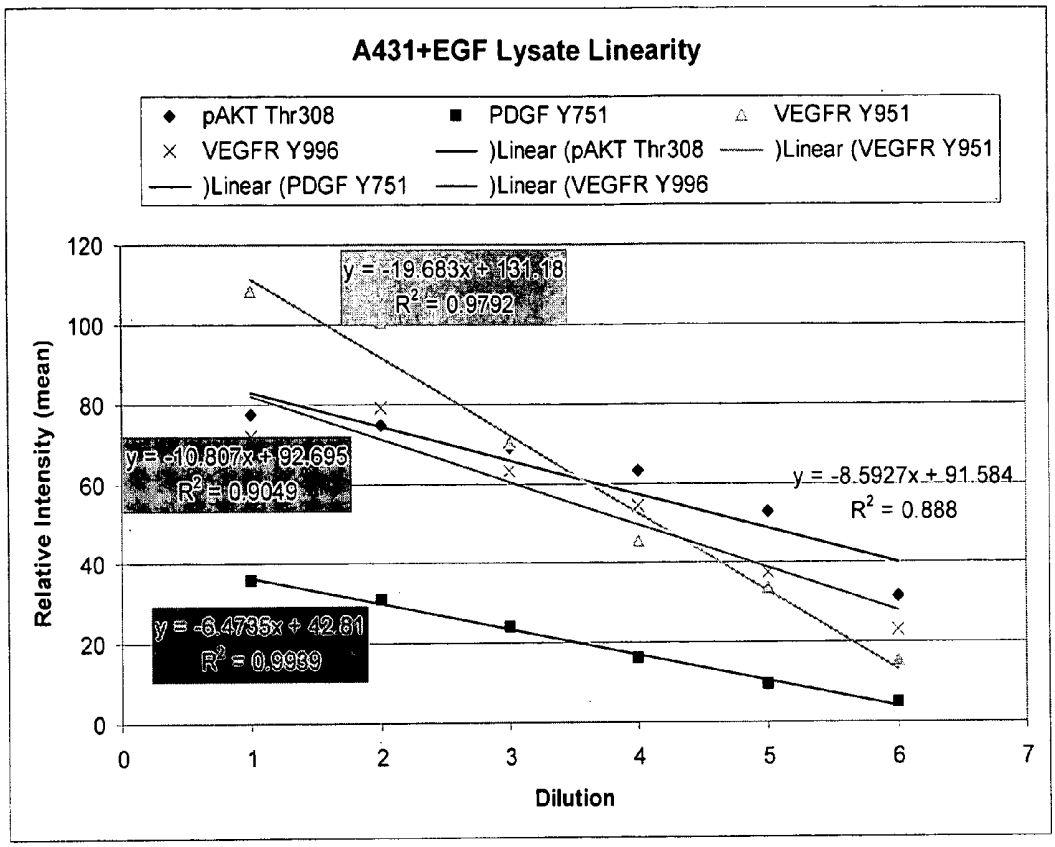

Vitreous Samples Reverse Phase Protein Microarrays
Low TP sample untreated
High TP sample untreated
Relative Intensity (mean)
100
80
60
40
20
0
-20
pAKT Thr308
PDGF Y751
VEGFR Y951
VEGFR Y996
Protein Endpoint

FIG 2.


A431+EGF Lysate Linearity
pAKT Thr308
PDGF Y751
VEGFR Y951
VEGFR Y996
)Linear (pAKT Thr308
)Linear (VEGFR Y951
)Linear (PDGF Y751
)Linear (VEGFR Y996
y = -19.683x + 131.18
R² = 0.9792
y = -10.807x + 92.695
R² = 0.9049
y = -8.5927x + 91.584
R² = 0.888
y = -6.4735x + 42.81
R² = 0.9939
Relative Intensity (mean)
Dilution
0
20
40
60
80
100
120
0
1
2
3
4
5
6
7

OCULAR FLUID MARKERS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of earlier-filed U.S. Provisional Application Ser. No. 60/762,499, filed Jan. 27, 2006, which is incorporated herein by reference in its entirety.

FIELD OF THE INVENTION

[0002] The present invention relates to the analysis and monitoring of ocular fluids for determining the physiological state of an organism, e.g., to monitor drug efficacy and dynamics, for early disease or other physiological state detection, as well as to monitor/quantitate certain molecular markers and fingerprints identified in such analysis.

SUMMARY OF THE INVENTION

[0003] This invention relates to, e.g., a method of characterizing the physiological state of the eye, comprising detecting the presence or absence in vitreous fluid of one or more polypeptides, or fragments thereof; a method of characterizing the physiological state of the eye, comprising detecting the presence or absence in vitreous fluid of one or more biomarker attractant-associated polypeptides, or fragments thereof; a method of characterizing the physiological state of a living system, comprising detecting the presence or absence in a vitreous fluid of one or more polypeptides, or fragments thereof; a method of monitoring the efficacy of a tyrosine kinase inhibitor or other drug in a subject to whom said inhibitor or drug has been administered, comprising measuring the presence of a phosphorylated polypeptide in the case of said inhibitor or a polypeptide in the case of said drug in a vitreous fluid sample extracted from a subject, wherein the subject has been administered a tyrosine kinase inhibitor, drug, or a biological, chemical, protein, antibody, or other therapeutic agent.

[0004] The vitreous actively participates in the development of pathologic conditions and contains proteins that may correlate with specific retinal pathologies. These proteins have been implicated in angiogenesis, mechanical traction via increased osmolarity and aging. The proteins retained in the vitreous provide a record of the state of ocular tissues.

[0005] Vitreous fluid contains proteins that can correlate with specific retinal pathologies, such as diabetic retinopathy. Diabetic retinopathy (DR) is the most prevalent cause of vision loss in working adults. Most patients with type 1 diabetes mellitus and over 60% of those with type 2 diabetes eventually develop retinal vascular abnormalities. 20% to 30% of these patients advance to active proliferative diabetic retinopathy (PDR) and/or diabetic macular edema. Increased retinal vascular permeability (RVP) is a primary cause of diabetic macular edema and a characteristic finding in PDR. While photocoagulation surgery and vitrectomy are highly effective in reducing vision loss, early diagnosis and preventative treatments for these disorders remain a major unmet clinical need. The following discusses additional disease applications for vitreous proteomics discovery and vitreous diagnostic testing.

[0006] Wet Age-related Macular Degeneration (AMD) is the leading cause of blindness in people over the age of 55. Most severe vision loss occurs in people who develop the wet form of the disease. Treatments for and early detection of wet AMD are being developed at an unprecedented rate. Study of these new drugs has clearly established that the best chance for maintaining functional vision depends upon treatment in the earliest stages of the transition from dry to wet AMD. Furthermore, dry AMD often persists for widely varying durations (with a range of decades) prior to progressing to the wet form. For now there are only rough indicators available through subjective testing and angiography. There is a great need for a method to detect and predict the progression of AMD that could be used to augment the subjective and imaging indicators already in use.

[0007] Very little is known about the biochemical signals that modulate the exudative process that causes the severe degradation of vision in patients with wet AMD. There is some data implicating VEGF (Vascular endothelial growth factor) in this process, but almost no data regarding possible other factors. New drugs that block VEGF in the vitreous, retina and choroid have been able to slow the course of the disease but there is need for developing methods for permanently halting the progression of the disease and ultimately reversing some of its effects. Understanding the retinal proteome in wet AMD will produce opportunities for major advances in the treatment of this blinding disorder.

[0008] Retinal vein occlusion is the leading cause of vision loss after diabetic retinopathy and macular degeneration. The natural history of these diseases vary significantly. The only predictive parameter is a crude measure of retinal vascular perfusion. There is a need to stage the severity of the retinal damage and look for parameters that will predict the visual outcome. These parameters will provide improved guidance for the treating physician. In addition, these tests will be crucial in developing new treatment methods in a disease that currently has only limited treatment options.

[0009] Cystoid Macular Edema (CME) is a type of edema of the macula that causes retinal damage and occurs in a wide variety of ocular disorders. There is intense interest among practitioners and pharmaceutical companies to develop treatments for CME. Understanding the ocular fluid proteome profile of patients with CME will provide new opportunities in prevention and treatment.

[0010] Although cataracts affect millions of people per year in the USA alone, very little is know about the factors that control cataract development. Our recent findings show that lens proteins called crystallins are found in the vitreous cavity. It is also known that typical senile type cataracts form within months of removal of the gel portion (vitreous humor) of the vitreous body. Tracking the proteome of the vitreous gel and the remaining fluid that accumulates following removal of the gel may lead to the identification of new factors that could prevent cataract formation. In many ways this has been the holy grail of ophthalmology.

[0011] Tools are needed to track the pharmacokinetics of intraocular drugs delivered directly or indirectly and track ocular/systemic drug partition between vitreous and serum. Thereby drug development and modification will be greatly facilitated providing significant value to the rapidly growing industry of developing drugs for retinal disorders.

[0012] This invention provides techniques and methods which have value for such problems.

[0013] Any ocular or eye-related fluid can be analyzed in accordance with the present invention, including, e.g., vitreous fluids; aqueous fluids; retinal blood, such as blood present in the choroid; and tears, including tears extracted

from the lacrimal sac. Fluids can be extracted routinely, e.g., by surgical vitrectomy procedures. In some cases the state of specific diseases as reflected in ocular fluids can be measured by fluorescent, magnetic, or radio nucleotide imaging.

[0014] The present invention provides a proteomic fingerprint of an ocular fluid sample, comprising at least one polypeptide or other molecule present in the sample. Polypeptides (also referred to as. "biomarkers") can be isolated using any suitable technology. For example, biomarkers can be harvested from low molecular weight fractions in which a biomarker attractant is associated with a polypeptide or other biomolecules ("biomarkers"). Methods of isolating biomarker attractant-associated biomolecules are described in WO05036180, which is hereby incorporated by reference in its entirety.

[0015] The term "biomarker attractant molecule," or "BAM," refers to a molecule, or other substance to which biomarkers in a biological fluid adhere. In particular examples, biomarkers adhere to a BAM with a low binding affinity (for example, a binding affinity of less than 10^{-3}, 10^{-4}, 10^{-5}, 10^{-6}, 10^{-7} or 10^{-8} L/mol-min). An antibody may be a BAM to the extent that it binds biomarkers, other than through the specific antigen antibody interaction that results from the immune response that stimulated its production. For example, biomarker binding to an antibody BAM may occur outside of the complementarity defining region (CDR), or outside of the variable region altogether, for example by binding to the Fc portion of the antibody. However, in certain embodiments of the disclosed methods, the BAM is not an antibody. Although a particular BAM may selectively bind a class of biomarkers, the binding affinities of the biomarkers in a particular class do not differ as significantly as the binding affinities of an antigen to a particular antibody compared to other non-recognized molecules. The less specific nature of biomarker binding may be illustrated in certain examples of the BAM in which more than one biomarker binds to the BAM, for example, at least 2, at least 5, at least 10, at least 20, or even 50 or more biomarkers bind to the BAM.

[0016] Typically, BAMs have a half-life of existence in a particular biological fluid (for example in the body) that is longer than the half-life of biomarkers that become adhered to the BAMs and thereby concentrate the biomarker in the biological fluid. For example, BAMs can have a half-life of greater than about 1 day, such as greater than 2, 5, 10, 20 or 50 days. In particular examples, the BAM has size and/or shape such that it is not substantially filtered from the blood by the kidneys. In other particular examples, the BAM has a molecular weight of greater than 25 kDa, for example, greater than 30, 50, 75, 100, 150, 200 or 300 kDa. In yet other particular examples, the BAM molecule has a molecular weight falling within a particular range, for example between 30 and 50 kDa, between 50 and 75 kDa, between 75 and 100 kDa, between 100 and 150 kDa, between 150 and 200 kDa, between 200 and 300 kDa, or any other range between 30 kDa and 300 kDa. Biomarkers may adsorb to the surface or be absorbed into the interior of the BAM, or both.

[0017] Examples of BAMs include proteins (including natural and engineered proteins such as chimeric proteins, proteins with modified amino acid composition, proteins modified postranslationally, nucleic acids, carbohydrate decorated molecules, and organic polymers), dendrimers and particles (such as microparticles and nanoparticles, including silica, metal, ceramic and carbohydrate microparticles and nanoparticles), and cellular microparticles (see, for example, Diamant et al, Eur J Clin Invest. 34: 392-401, 2004).

[0018] BAMs may be produced or derivatized to provide ionic groups (such as carboxylate, protonated amine, quaternary ammonium, and sulfate groups), hydrogen-bond acceptors or hydrogen-bond donors, electron donors or electron acceptors, polar groups (such as amino, hydroxyl, ester, sulfhydryl and nitrile groups), hydrophobic groups (such as alkyl, alkenyl and alkynyl groups or groups with specific partition coefficients), peptides, proteins, nucleic acids, carbohydrates, lipids or any combination thereof, on their surfaces or in their interiors. Where the BAM is a protein, such as a naturally occurring protein, it may also be referred to as a "carrier protein" to reflect its role in collecting and concentrating LMM biomarkers from biological fluids. Examples of carrier proteins include albumin, iron binding proteins (such as transferrin), fibrinogen, alpha-2-macroglobulin, immunoglobulins (such as IgA, IgE and IgG), complement, haptoglobulin, lipoproteins, prealbumin, alpha-l-acid glycoprotein, fibronectin, and ceruloplasmin, and fragments, combinations and chemical derivatives thereof.

[0019] A proteomic fingerprint can comprise as few as one polypeptide, or it can comprise more than one polypeptide (i.e., a plurality). Any method of analyzing ocular fluid content can be utilized. For example, biomarker attractants (also referred to as a biomarker attractant molecules or "BAM") present in an ocular fluid can be utilized without limitation for purification purposes, including albumin, proteoglycans, glucosaminglycans, and heparan sulfates. The polypeptides can be present as intact proteins, or as fragments. Such fragments can be naturally-occurring, or can be produced during processing of a sample, either by inadvertent or deliberate proteolysis (e.g., contacting a sample with a proteolytic enzyme or a chemical cleavage agent).

[0020] Examples of biomarkers that have been isolated from ocular fluids are shown in Table 2 to Table 13. These were obtained by running a sample of ocular fluid on an SDS-PAGE gel, and then digesting the entire gel lane from high to low protein molecular weight with trypsin, followed by MS/MS analysis.

[0021] The set of polypeptides detected in accordance with the present invention can be described as a "fingerprint" in that they are a distinctive pattern of polypeptides present in the ocular fluid. Fingerprints can be prepared using the BAM techniques described above, or using other technologies or purification processes, e.g., characterizing polypeptides present in the ocular fluids without a BAM-enrichment step (See Table 2 to Table 13 for a representative example of such polypeptides).

[0022] Just as with a fingerprint, the set of polypeptides can be used as a unique identifier to characterize the fluid, as well as the physiological status of the subject. The ocular fingerprint can be viewed as a snapshot of the elements (e.g., polypeptides) that are involved in, or a product of, the physiological processes that are occurring in the body. Examples of physiological states that can be characterized in accordance with the present invention include without limitation, diseases states (e.g., cancer, retinopathy, diabetes, macular degeneration, venous occlusive disease, cataracts, and other disorders mentioned herein); therapeutic states (e.g., for monitoring drug efficacy and adverse events); organ function (e.g., to monitor normal organ function, such as brain, kidney, and liver functions); toxicological states

(e.g., to detect toxins or perturbations caused by toxins); etc. Thus, an ocular fluid fingerprint can be used for a variety of medical, diagnostic, and therapeutic purposes, including, for example: to detect the risk of cataract formation (see below); to monitor blood-ocular breakdown; to detect age-related macular degeneration; to detect therapeutic efficacy of kinase inhibitors and other drugs; etc.

[0023] For example, ocular fluids can be removed from a patient using a whole-bore vitrectomy cannula or cutter containing agents that inhibit polypeptide degradation, and then subjecting the fluid to analysis for the presence of biomarkers. Such biomarkers can be used to determine the risk of cataracts (e.g., when crystallins are elevated); the integrity of the blood-ocular barrier; and other retinal conditions and diseases. This can be especially useful in patients who are at risk for an ocular disease, e.g., subjects with diabetes, aging subjects, or subjects who have been identified as a carrier of a gene defect associated with an ocular disorder.

[0024] Other viable polypeptide candidates which can be routinely analyzed for the assessment of the physiological state of an individual comprise proteins that are pathologically correlated with certain physiological state. For example, retinol binding protein-4 (RBP4) is known to contribute to the development of diabetes by blocking the action of insulin. Ocular detection of this protein may lead to important insights into the initiation and/or progression of diabetes in a subject. Other examples of these polypeptide candidates include, but are not limited to, Secreted Protein Acidic and Rich in Cysteine (SPARC). It is known that SPARC is upregulated after injury and modulates cell adhesion and proliferation and by releasing the KGHK peptide, which stimulates angiogenesis. SPARC binds VEGF, inhibits its interaction with extracellular surface, and also inhibits activation of downstream effectors (e.g., ERK1/2) and VEGF-induced DNA synthesis. It has been thought that SPARC not only modulates angiogenesis but, moreover, regulation of SPARC levels appears to be the key to control angiogenesis in macular degeneration. A third example of a protein that may be utilized as a diagnostic marker of a disease state (for example, cancer) comprises detection of phosphorylation status of Akt. Akt is activated by growth factors or cytokines in a PI3K-dependent manner, and phosphorylation of two residues by PDK1 (T308) and PDK2 (S473) is required for its full activation. The instant method comprises detecting the phosphorylation status of one or more amino acid residues of Akt in normal subject and a patient, and comparing the status with, for example, progression of cancer in the patient. Other cancer biomarkers, for e.g., VEGFR, EGFR, Bcr-Abl, Her2-Neu (erbB2), TGFR, etc. may also be routinely analyzed.

[0025] Therefore, in addition to the ocular disorders, the ocular fluids can also be used generally to monitor a subject's health and physiological status. The ocular fluid is in communication with other body compartments, and thus is useful to monitor extra-ocular compartments, including the brain, kidney, liver, etc. Since developmentally the eye is an extension of the brain the state of the molecular composition of ocular fluids can provide information about diseases in the brain. With regard to more distant organs, molecules derived from these organs may enter the ocular fluids through the circulation, or the ocular fluid markers may reflect a systemic body-wide process that effects the distant organ.

[0026] The present invention also relates to methods of monitoring the physiological status of a subject, comprising: measuring the presence of a post-translationally modified polypeptide (e.g., phosphorylation) in a vitreous fluid sample extracted from a subject. In certain claims, signaling pathways can be monitored. Signaling pathways include any pathway in the body that involves generating a chemical event (e.g., phosphorylation) that modulates a cellular activity (e.g., indicating receptor occupancy, site-directed protein-protein binding, and triggering a cascade of enzymatic reactions that culminates in gene expression). For example, phosphorylation is a key post-translational modification event in many biological pathways involved in cell growth, cell death, gene expression, and cellular responses to stimuli. In addition, aberrant phosphorylation patterns may be associated with diseases, such as cancer and other hyperproliferation disorders.

[0027] Further examples include, e.g., G-protein receptor mediated pathways, especially receptors for tyrosine kinases, such as vascular growth factor receptors (e.g., VEGFR-1, VEGFR-2), epidermal growth factor receptors (EGFR), HER2, adrenergic receptors (e.g., alpha- and beta-types); hormone mediated receptors; etc. Examples of receptors include, VEGFR-2 (e.g., including phosphorylation sites Y951, Y996, Y1054, Y1059, Y1175, Y1214); PDGFR-beta (e.g., including phosphorylation sites Y740, Y751, and Y771), and EGFR (e.g., including phosphorylation sites Y1173, Y1148, Y1068, Y845, and Y992).

[0028] These methods can also be utilized to measure or monitor the efficacy of a drug, especially a drug which is utilized to modulate a kinase, such as a tyrosine kinase, or a biological based therapeutic, such as an autologous platelet concentrate. A variety of therapeutic agents are being used to treat diseases or disorders associated with aberrant or increased kinase activity, including cancers and angiogenesis. Targets include, but are not limited to, e.g., raf, PDGFR-alpha, PDGFR-beta, EGFR, VEGFR, VEGFR1, VEGFR2, VEGFR3, HER-2, KIT, FLT3, c-MET, FGFR, FGFR1, FGFR3, c-FMS, RET, ABL, ALK, ARG, NTRK1, NTRK3, JAK2, ROS, etc. Other signaling targets include, e.g., ERK, AKT, PYK2, etc.

[0029] Examples of kinase effecting drugs, include, but are not limited to, e.g., avastin (bevacizumab), cetuximab, erlotinib (tarceva or OSI774), everolimus (RAD0001), fasudil, FK506, gefitinib (ZD1839), imatinib mesylate (STI57 or Gleevec), lapatinib ditosylate (GSK572016), rapamycin, sorafinib, sirolimus, sunitinib (sutent), trastuzumab (Herceptin), serafanib and wortmannin.

[0030] One goal of such drug therapy is to reduce the amount of phosphorylation of a target polypeptide. For example, several anti-cancer drugs are being utilized to block angiogenesis by blocking the phosphorylation of VEGFR-2. The efficacy of such drugs can be monitored by detecting the appearance of shed phosphorylated receptor into the vitreous fluid. As shown in the attached example, phosphorylated VEGFR-2 and PDGF-R polypeptide fragments were detected in vitreous fluid using reverse phase assays.

[0031] Reverse phase protein microarray is a technique that is routinely used for efficient and accurate detection of proteins in a sample. The proteins extracted from a single sample are immobilized on the substratum. The captured analytes are detected with a primary antibody directed toward the protein/polypeptide of interest and a second tagged molecule is incorporated for the detection strategy. Each spot on the array corresponds to a different sample. Total lysates of different samples are immobilized on the

array and incubated with one antibody. Each spot on the array corresponds to a different sample (up to 640 lysates per array). Reverse phase microarray allows for probing into the networking and cross-talk between proteins involved in intracellular signaling. Uses of reverse phase microarray techniques in, for example, microarray printing, protein detection, and/or protein quantification are all commensurate with the scope of the instant invention.

[0032] Detection of polypeptides can be made by any suitable technique. Polypeptide backbone can be detected, as well as post-translational modifications of it, such as glycosylation and phosphorylation. Antibodies can be used routinely, e.g., which are generated to amino acid epitopes of the target polypeptide; phosphorylated amino acids, etc. Reverse phase assay can be used to detect ocular polypeptides, where the array is comprised of ocular fluid immobilized to a substrate such as nitrocellulose, and binding partners (such as antibodies) are applied that specifically bind the target of interest. These can be rapidly used to characterize the contents of the fluid and generate disease biomarkers, including proteomic fingerprints. See, e.g., Grubb et al., Proteomics, 3:2142-2146, 2003. Mass spectroscopy and other conventional proteomic methods can also be used.

[0033] In the instant invention, there is provided a method for detecting macular diseases, retinal detachment, inflammation of the eye, diabetic retinopathy and many other diseases comprising comparing a profile of shed receptors or signal transduction molecules and/or their phosphorylated forms, for e.g., VEGFR, PDGFR, EGFR, RBP4 in a healthy subject with that of a patient. Of note is that these receptor proteins are known to be existing drug targets for existing drugs such as Gleevac, Iressa, and Avastin, demonstrating that this information could be used to tailor therapy for the patient. With regard to cataracts the instant invention relates to identification of a series of crystallins in vitreous samples of patients who have had a vitrectomy for retinal detachment. Such patients have virtually a certain chance of immediately developing cataracts. With regard to macular hole or macular detachment therapy or macular vascular leak, therapy can include administration of natural autologous protein such as platelet extracts.

[0034] Given the correlations described in this application, for a particular patient, the presence of a disease will be measured by, for example, extracting vitreous fluid from the patient and determining the content of the particular polypeptide or fragment of interest using fully conventional methods such as (immunologic techniques, antibody diagnostics, radioimmunoassays, mass spectrometry, microarrays, western blotting, gel electrophoresis, and labeled or enzyme amplified diagnostic technologies.

[0035] Using the technique described previously, one of ordinary skill in the art, using routine methods may develop correlations that cater to, or are specific towards the detecting and diagnosis of a particular disease. For instance, the method provides a means for characterizing the identity and/or content of vitreous fluid with respect to the levels or amounts of particular peptides which will be indicative of disease. Peptides that are unique to a disease, wherein the presence of any amount of such peptides will indicate the likelihood of the disease being present are described. One of ordinary skill in the art could utilize existing knowledge of peptide biomarkers which correlate with a particular disease or a physiological state, and screen for said peptide(s) using the method described by the instant invention. In some cases the presence or absence of the molecule above background may be diagnostic of the disease, because that molecule may not be expected otherwise. An example is molecules associated with vascular leakage during wet macular degeneration. In other cases the level of the molecule concentration or the level of the phosphorylated molecules (phosphorylation on one or more specific residues) may be quantitatively related to the severity of the disease or the amount of disease suppression produced by a drug administered to the patient. An example is a method for detecting the phosphorylation status of the VEGFR, (which may have no correlation with the amount of total receptor protein) as a predictor of (a) requirement for an angiogenesis inhibitor, and (b) whether or not an angiogenesis inhibitor is working to suppress the VEGF ligand from triggering its receptor. If the receptor is active or engaged with ligand then and only then will it be phosphorylated.

[0036] The instant invention relates to the use of the vitreous fluid as a reservoir of important biological markers. As is explained in the tables, samples may be isolated from a live specimen or from a cadaver. Tables 2-13 provide a representative list of peptides which are present in the vitreous fluid of the eye.

[0037] The instant invention also provides a method for identification of novel proteins/peptides which are potential biomarkers of diseases and/or physiological state in subject. Representative examples of such peptides in relation to ocular diseases (for e.g., macular hole, retinal degeneration, or a combination of macular hole and retinal degeneration) are provided in the tables (Tables 5-13). Polypeptides that are specifically associated with a disease, for e.g., when compared to a different disease or a control sample, are highlighted/underlined.

[0038] Additionally, the present invention relates to a method for detecting proteins in the vitreous fluid of the eye comprising isolation of the protein, enzymatic hydrolysis (for e.g., using trypsin), HPLC separation, resolved using mass spectrometric analysis, and the retrieved fragments are searched a database of candidate polypeptides. Routine methods for HPLC analysis of peptides are known in the art, and may involve utilization of separation columns and/or buffers of interest (for e.g., modified C-18 column). Techniques for mass-spectrometric analysis of peptides are also known, and may involve, for e.g., nano-spray/linear Ion Trap mass spectrometric analysis.

[0039] The present invention also provides an improved hollow bore cannula or cutter for performing a vitrectomy, wherein the improvement comprises a reservoir in said cannula or cutter that comprises at least one chemical to protect polypeptide integrity. Chemicals that can be included in the reservoir include, e.g., protease inhibitors; phosphatase inhibitors; etc. Specific examples include, serine protease inhibitors, cysteine protease inhibitors, aspartic protease inhibitors, and metalloprotease inhibitors. Examples of these include, AEBSF, aprotinin, E-64, EDTA, leupeptin, bestatin, O-phenanthroline, cathepsin, etc.

[0040] Without further elaboration, it is believed that one skilled in the art can, using the preceding description, utilize the following invention to its fullest extent. The following specific preferred claims are, therefore, to be construed as merely illustrative, and not limitative of the remainder of the disclosure in any way whatsoever.

[0041] The entire disclosures of all applications, patents and publications, cited above and below, are hereby incorporated by reference.

BRIEF DESCRIPTION OF THE FIGURES

[0042] FIG. 1 depicts the validation of ocular markers in one microliter of vitreous fluid obtained from a living patient donor. The amplitude of the bars is the relative density of the amplified antibody signal relative to total protein in the sample for the designated analyte. Based on dilution curves, calibrators, and controls it can be readily assessed that the concentration of the molecule being measured is above background and within the linear range of the assay.

[0043] FIG. 2 shows a dilution curve for each analyte verifying that the assay is linear over the detection range. These data conclusively validate the existence of these identified molecules and demonstrate that they can be measured in very small volumes that can be sampled by a microneedle in a routine clinical setting. All antibodies used fo detection were tested to insure antigen specificity. The antibodies detected phosphorylated residues on the analyte protein recognize the protein only if it phosphorylated on the specific residue. If the protein is not phosphorylated on this residue or is phosphorylated on another residue, then the antibody will not bind and the value is zero.

[0044] The invention will be explained below with reference to the following non-limiting examples.

EXAMPLES

[0045] In the forgoing and in the following examples, all temperatures are set forth uncorrected in degrees Celsius (° C.) and, all parts and percentages are by weight, unless otherwise indicated.

Experimental Procedure

Vitreous Sampling:

Pars Plana Vitrectomy

[0046] All vitreous samples were obtained prior to the vitrectomy portion of the surgery. The surgery would have been done regardless of participation in the study. The patient was prepped and draped in the usual sterile fashion. Prior to the vitrectomy portion of the study, a minute amount of vitreous (approximately 0.1 ml) was obtained in a sterile TB syringe through the pars plana. The vitreous sample was then frozen at −20° C. or −80° C. for storage and subsequent analysis of the vitreous proteome. There was no additional risk to the patient in addition to that incurred from the surgery alone.

Autopsy Study

[0047] At an unrestricted consented autopsy, 2-8 ml of clear vitreous gel were extracted by inserting in the lateral palpebral fissure a 22 g needle attached to a 10 ml tuberculin. The samples were immediately frozen at −80° C.

[0048] Approximately 5-10 cc of vitreous was collected from each eye. Nine separate autopsy samples were procured. The samples were stored at −80° C. until the analysis could be performed.

Samples From Patients Undergoing a Total Vitrectomy

[0049] The patients were prepared accordingly to the anesthetic/surgical protocols prescribed for the specific pathology which the patients were suffering from. Vitrectomy was carried out using a surgical microscope and external lenses designed to provide a clear image of the back of the eye. Using the sclerotome, tree tiny incisions just a few millimeters in length were made on the sclera, then the retinal surgeon inserted the following instruments: 1) a fiber optic light source to illuminate inside the eye; 2) the infusion line to maintain the eye's shape and tone during surgery and 3) the vitrectome to cut and remove the vitreous. The total vitreous was aspirated by the vitrectome and diluted 5-8 times with Ringer-lactate buffer solution kept at room temperature during the surgical session, depending on the length of the surgical procedure, on whether additional procedures were required and on the overall health of the eye. Immediately after the vitreous removal, the cassette containing the diluted vitreous was placed at 4° C., and within 60 min gently aspirated, then diluted 1:1 with cold Ringer-lactate buffer solution (at 4° C.). Then the suspension was carefully mixed five times, then passed through a sterile pipette with narrow tip (20 passages) until any macroscopic material was completely dissolved. Finally, the re-suspended material was divided into small aliquots (1 ml) into plastic tubes previously labeled, immediately frozen with liquid nitrogen and stored at −80° C. within 15 min. Smaller aliquots were also frozen to carry out subsequently the protein quantification, using a commercial Bradford assay (Biorad). All the procedures were carried out using sterile plastic ware.

[0050] To develop a reproducible procedure to analyze the proteins contained in eye tissues, preliminary experiments were carried out with bovine eyeballs obtained from a local slaughterhouse. The eyeballs were maintained at 4° C. until the vitreous was extracted, i.e. 6-8 hours after the death of the animal. The eyeballs were cut 3 mm posterior to the limbus and the whole vitreous and the whole lens were removed as described (Facchiano et al, 1996). Then, samples were re-suspended by mechanical dissociation of the material using cold saline buffer. Protein concentration and stability in the eye tissues homogenates was checked by SDS-PAGE analysis and silver staining procedure.

Nanoflow Reversed-Phase Liquid Chromatography Tandem Mass Spectrometry

[0051] Vitreous samples were digested by trypsin and peptides were purified by Zip-tip (Waters). The peptides were then analyzed by reversed-phase liquid chromatography nanospray tandem mass spectrometry using a linear ion-trap mass spectrometer (LTQ, ThermoElectron, San Jose, Calif.). Reverse phase column was slurry-packed in-house with 5 μm, 200 Å pore size C_{18} resin (Michrom BioResources, CA) in 100 μm i.d.×10 cm long fused silica capillary (Polymicro Technologies, Phoenix, Ariz.) with a laser-pulled tip. After sample injection, the column was washed for 5 min with mobile phase A (0.1% formic acid) and peptides were eluted using a linear gradient of 0% mobile phase B (0.1% formic acid, 80% acetonitrile) to 50% mobile phase B in 30 min at 250 nl/min, then to 100% B in an additional 5 min. The LTQ mass spectrometer was operated in a data-dependent mode in which each full MS scan was followed by five MS/MS scans where the five most abundant molecular ions were dynamically selected and fragmented by collision-induced dissociation (CID) using a normalized collision energy of 35%.

Bioinformatic Analysis

[0052] Tandem mass spectra were matched against Swiss-Prot human database through the Sequest Bioworks Browser (ThermoFinnigan) using tryptic cleavage constraints and static cysteine alkylation by iodoacetamide. For a peptide to be considered legitimately identified, it had to achieve cross correlation scores of 1.5 for $[M+H]^{1+}$, 2.0 for $[M+2H]^{2+}$, 2.5 for $[M+3H]^{3+}$, $\Delta Cn>0.1$, and a maximum probabilities of randomized identification of 0.01.

TABLE 1

Vitreous demographic information (S: Sex; PM: Post mortem)

Vitreous samples	Age	S	Cause of Death/Diagnosis	PM Interval	Vitreous Color	Vitreous Claritiy
2005-35	35	M	Peritonitis/Nephropathic cytinosis	72 h	Pale Pink	Clear
2005-41	41	M	Disseminated Aspergillus/GBM	12 h	Colorless	Clear
2005-49	59	M	Metastatic Renal cell carcinoma	5 h	Colorless	Clear
2005-52	59	F	Undetermined/AML	14 h	Colorless	Clear
2005-56	71	M	Pneumonia/Multiple Sclerosis	20.5 h	Colorless	Clear
2005-60	40	F	Pneumonia/ALL	62 h	Pale Pink	Clear
2005-67	20	M	Pneumonia/Alexander's Disease	8 h	Colorless	Clear
2005-71	24	M	CVA/Chronic Granulomatous Disease	33 h	Colorless	Clear
2005-78	64	M	Cirrhosis/Hepatitis C	48 h	Yellow	Clear
2004-34	16	M	Neurotoxoplasmosis/Myelodysplasia	16 h	Colorless	Clear
2004-39	53	M	CVA/Hairy Cell Leukemia	8.5 h	Colorless	Clear
2005-74	46	F	dad/aml-m5	5 h	Colorless	Clear

[0053]

TABLE 2

Osteopontin precursor
Interleukin precursors
Neural cadherin precursor
PROSAAS precursor (Granin-like neuroendocrine peptide precursor)
Interphotoreceptor retinoid-binding protein precursor
Dickkopf related protein-3 precursor
TriadinMutS protein homolog 4
Wnt inhibitory factor 1 precursor
S-arrestin
Von Ebner's gland protein precursor
Opticin
Cofilin
Receptor precursors
TCP11b protein
Kidney-specific membrane protein NX-17
Retinoic Acid Receptor Responder Protein
Retinoblastoma-associated factor 600
Retinoschisin
Muscarinic acetylcholine receptor M5
Phosphatidylethanolamine-binding Protein
BAG-family molecular chaperone regulator-1
Beta crystallin B

[0054] The preceding examples can be repeated with similar success by substituting the generically or specifically described reactants and/or operating conditions of this invention for those used in the preceding examples.

[0055] From the foregoing description, one skilled in the art can easily ascertain the essential characteristics of this invention and, without departing from the spirit and scope thereof, can make various changes and modifications of the invention to adapt it to various usages and conditions.

[0056] It is believed that one skilled in the art, using the preceding information and information available in the art, can utilize the present invention to its fullest extent. It should be apparent to one of ordinary skill in the art that changes and modifications can be made to this invention without departing from the spirit or scope of the invention as it is set forth herein. The topic headings set forth above and below are meant as guidance where certain information can be found in the application, but are not intended to be the only source in the application where information on such topic can be found. All publications and patents cited above are incorporated herein by reference.

TABLE 3.1

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
1	albumin precursor; PRO0883 protein [*Homo sapiens*]	1.00E−30	4502027	95	19	11
2	transthyretin; prealbumin [*Homo sapiens*]	1.00E−30	4507725	23	19	11
3	transferrin; PRO2086 protein [*Homo sapiens*]	1.11E−15	4557871	52	19	11
4	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiprotei	1.11E−16	21361198	16	19	11
5	clusterin isoform 1; complement-associated protein SP-40 [*Homo sapiens*	1.53E−13	42716297	14	19	11
6	complement component 3 precursor; acylation-stimulating protein cleavag?	8.55E−14	4557385	10	18	10
7	ceruloplasmin (ferroxidase); Ceruloplasmin [*Homo sapiens*]	2.96E−12	4557485	8	18	11
8	hemopexin [*Homo sapiens*]	6.22E−14	11321561	9	18	10
9	serine (or cysteine) proteinase inhibitor, clade F (alpha-2 antiplasmi	1.05E−12	39725934	13	18	11
10	orosomucoid 2; alpha-1-acid glycoprotein, type 2 [*Homo sapiens*]	2.73E−13	4505529	5	17	10
11	vitamin D-binding protein precursor; vitamin D-binding alpha-globulin	1.49E−13	32483410	7	17	9
12	complement component 4B proprotein [*Homo sapiens*]	3.11E−14	4502501	6	16	11
13	apolipoprotein A-I precursor [*Homo sapiens*]	4.91E−12	4557321	10	16	10
14	orosomucoid 1 precursor; alpha-1-acid glycoprotein 1; Orosomucoid-1 (al?	5.08E−13	9257232	6	15	10
15	RBP3 gene product [*Homo sapiens*]	3.33E−15	4506453	16	14	10
16	beta-2-microglobulin precursor [*Homo sapiens*]	9.99E−15	4757826	3	14	10
17	gelsolin isoform b [*Homo sapiens*]	1.00E−30	38044288	4	14	9
18	apolipoprotein E precursor; apolipoprotein E3 [*Homo sapiens*]	1.58E−11	4557325	6	13	9

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
19	EGF-containing fibulin-like extracellular matrix protein 1 isoform b; f	1.03E−11	9665253	3	13	9
20	PREDICTED: hypothetical protein XP_373740 [*Homo sapiens*]	3.65E−05	41222847	2	13	9
21	complement factor B preproprotein; C3 proactivator; C3 proaccelerator;	2.63E−09	4502397	4	12	5
22	complement component 1 inhibitor precursor [*Homo sapiens*]	1.28E−09	4557379	4	12	10
23	supervillin isoform 2; membrane-associated F-actin binding protein p20	1.51E−03	11496982	1	12	9
24	apolipoprotein A-II precursor [*Homo sapiens*]	1.60E−11	4502149	4	11	6
25	cystatin C precursor; cystatin 3; gamma-trace; post	1.15E−10	4503107	6	11	9
26	alpha-1-antichymotrypsin, precursor; alpha-1-antichymotrypsin; antichym	3.02E−09	4501843	3	10	7
27	alpha-2-macroglobulin precursor [*Homo sapiens*]	5.16E−12	4557225	8	10	10
28	beta-2-glycoprotein I precursor [*Homo sapiens*]	5.22E−14	4557327	4	10	5
29	prostaglandin D2 synthase 21 kDa; prostaglandin D synthase; prostaglandⓘ	5.88E−14	32171249	3	10	8
30	dickkopf homolog 3; RIG-like 7-1; RIG-like 5-6; dickkopf (*Xenopus* laev	7.77E−15	40548389	3	10	9
31	kininogen 1; alpha-2-thiol proteinase inhibitor; bradykinin [*Homo* sapie	1.79E−08	4504893	3	9	5
32	secreted phosphoprotein 1 (osteopontin, bone sialo	3.44E−14	4759166	5	9	9
33	haptoglobin [*Homo sapiens*]	7.34E−11	4826762	7	9	6
34	plasma glutathione peroxidase 3 precursor [*Homo sapiens*]	1.54E−11	6006001	2	9	7
35	haptoglobin-related protein; Haptoglobin-related locus [*Homo sapiens*]	5.75E−09	45580723	7	9	6
36	alpha-1-microglobulin/bikunin precursor; Alpha-1-microglobulin/bikunin	8.33E−11	4502067	3	8	8
37	serine (or cysteine) proteinase inhibitor, clade C (antithrombin), memb	3.24E−07	4502261	3	8	6
38	crystallin, beta B1; eye lens structural protein [*Homo sapiens*]	1.56E−11	4503061	22	8	3
39	crystallin, beta B2; eye lens structural protein [*Homo sapiens*]	4.24E−11	4503063	7	8	4
40	cathepsin D preproprotein [*Homo sapiens*]	2.95E−10	4503143	2	8	7
41	I factor (complement) [*Homo sapiens*]	1.88E−07	4504579	2	8	6
42	RBP4 gene product [*Homo sapiens*]	9.77E−14	5803139	3	8	6
43	alpha 1B-glycoprotein [*Homo sapiens*]	2.60E−12	21071030	2	8	6
44	transcription factor-like protein 4 isoform gamma; MAX-like bHLHZIP pr	2.12E−03	24586667	1	8	5
45	tripeptidyl-peptidase I precursor [*Homo sapiens*]	1.00E−30	5729770	1	7	7
46	opticin; opticin, oculoglycan; oculoglycan [*Homo sapiens*]	3.15E−09	7657419	2	7	4
47	crystallin, beta A3; eye lens structural protein [*Homo sapiens*]	2.22E−15	12056461	11	7	2
48	apolipoprotein A-IV precursor [*Homo sapiens*]	4.20E−11	4502151	4	6	3
49	crystallin, alpha A; crystallin, alpha-1; human alphaA-crystallin (CRYA	6.66E−15	4503055	9	6	2
50	crystallin, alpha B; heat-shock 20 kD like-protein [*Homo sapiens*]	1.82E−11	4503057	6	6	2
51	lipocalin 1 precursor; lipocalin 1 (protein migrati	1.23E−12	4504963	4	6	6
52	angiotensinogen precursor; angiotensin II precursor; pre-angiotensinoge	2.70E−12	4557287	4	6	6
53	lysozyme precursor [*Homo sapiens*]	9.99E−15	4557894	5	6	6
54	phosphodiesterase 6A, alpha subunit [*Homo sapiens*]	2.08E−04	4585864	1	6	5
55	GTPase regulator associated with the focal adhesion kinase pp125; GTPas	1.08E−03	7662208	1	6	4
56	crystallin, gamma S; crystallin, gamma 8 [*Homo sapiens*]	8.39E−13	8922120	12	6	3
57	amyloid beta (A4) precursor-like protein 2; amyloi	1.07E−09	4502147	3	5	5
58	carboxypeptidase E precursor [*Homo sapiens*]	7.12E−12	4503009	4	5	5
59	beta globin; hemoglobin beta chain [*Homo sapiens*]	9.99E−15	4504349	6	5	4
60	histidine-rich glycoprotein precursor; histidine-proline rich glycoprot	5.05E−08	4504489	2	5	4
61	amyloid beta (A4) precursor-like protein 1 [*Homo* sa	5.89E−08	4885065	1	5	5
62	glyceraldehyde-3-phosphate dehydrogenase [*Homo sapiens*]	5.99E−10	7669492	3	5	5
63	dual specificity phosphatase 5; serine/threonine specific protein phos	1.12E−04	12707566	1	5	4
64	ectonucleotide pyrophosphatase/phosphodiesterase 2	2.66E−14	20070230	2	5	5
65	hypothetical protein DKFZp434O0527 [*Homo sapiens*]	7.81E−04	34916026	1	5	4
66	afamin precursor; alpha-albumin [*Homo sapiens*]	1.10E−12	4501987	1	4	3
67	lysosomal trafficking regulator; beige protein [Hom	5.78E−05	4502839	1	4	4
68	chitinase 3-like 1; cartilage glycoprotein-39 [*Homo sapiens*]	9.78E−06	4557018	1	4	3
69	skeletal muscle specific actinin, alpha 3 [*Homo sapiens*]	3.34E−04	4557241	1	4	3
70	Niemann-Pick disease, type C2 precursor; epididymal	1.08E−10	5453678	1	4	4
71	Wnt inhibitory factor-1 precursor; Wnt inhibitory factor-1 [*Homo sapien*	2.09E−08	6005950	3	4	4
72	hypothetical protein FLJ20580 [*Homo sapiens*]	8.20E−04	8923541	1	4	3
73	arginyl-tRNA synthetase [*Homo sapiens*]	2.46E−03	15149476	1	4	4
74	enolase 3; enolase-3, beta, muscle; muscle specif	8.88E−15	16554592	1	4	4
75	ribosomal protein L10-like protein [*Homo sapiens*]	1.50E−03	18152783	1	4	2
76	SPARC-like 1; hevin; mast9 [*Homo sapiens*]	9.96E−08	21359871	1	4	4
77	mutS homolog 5 isoform a; mutS (*E. coli*) homolog 5 [*Homo sapiens*]	6.18E−03	26638662	1	4	4
78	dual oxidase 2 precursor; dual oxidase-like domains 2; nicotinamide ad	2.36E−04	28872753	1	4	4
79	pancreatic ribonuclease precursor; RNase upl-1 [*Homo sapiens*]	1.24E−08	38201682	1	4	4
80	FLT25005 protein [*Homo sapiens*]	4.55E−03	38570111	1	4	4
81	PREDICTED: hypothetical protein XP_376099 [*Homo sapiens*]	6.72E−05	42656388	1	4	3
82	PREDICTED: KIAA1414 protein [*Homo sapiens*]	2.04E−03	51460558	1	4	3
83	PREDICTED: cardiomyopathy associated 3 [*Homo sapiens*]	5.89E−05	51460893	1	4	2
84	PREDICTED: hypothetical protein FLJ25756 [*Homo sapiens*]	4.76E−04	51472397	2	4	4
85	PREDICTED: KIAA0179 [*Homo sapiens*]	8.94E−04	51475296	1	4	4
86	PREDICTED: similar to phosducin-like 3; phosducin-like 2; IAP-associat	5.29E−05	51492730	3	4	2
87	alpha 1 actin precursor; alpha skeletal muscle act	1.29E−05	4501881	1	3	3
88	alpha-2-HS-glycoprotein; Alpha-2HS-glycoprotein [*Homo sapiens*]	3.79E−04	4502005	1	3	3
89	alpha-2-glycoprotein 1, zinc; Alpha-2-glycoprotein,	1.77E−08	4502337	2	3	3

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
90	filensin; cytoskeletal protein, 115 KD [*Homo* sapie	1.32E−09	4502399	3	3	1
91	crystallin, beta A4; eye lens structural protein; C	4.44E−15	4503059	8	3	2
92	Fc fragment of IgG binding protein; IgG Fc binding	1.36E−08	4503681	8	3	3
93	glutathione transferase; deafness, X-linked 7; fatt	1.03E−11	4504183	1	3	3
94	alpha 2 globin; alpha globin; alpha-2 globin [*Homo sapiens*]	6.97E−12	4504345	5	3	3
95	lactotransferrin; lactoferrin [*Homo sapiens*]	9.25E−11	4505043	11	3	3
96	prolactin-induced protein; prolactin-inducible pro	1.65E−09	4505821	2	3	3
97	plasminogen [*Homo sapiens*]	2.12E−04	4505881	1	3	2
98	pregnancy-zone protein; Pregnancy zone protein [*Homo sapiens*]	4.49E−09	4506355	1	3	3
99	S-arrestin [*Homo sapiens*]	9.37E−11	4506781	5	3	3
100	acyl-Coenzyme A dehydrogenase, very long chain pre	1.84E−04	4557235	2	3	3
101	sparc/osteonectin, cwcv and kazal-like domains pro	4.61E−06	4759164	1	3	3
102	insulin receptor substrate 1 [*Homo sapiens*]	3.11E−03	5031805	1	3	1
103	cleavage and polyadenylation specific factor 3, 73 kDa; cleavage and pol	1.10E−03	7706427	1	3	2
104	leucine zipper, putative tumor suppressor 1; F37/E	2.64E−03	10440566	1	3	2
105	crystallin, gamma C; crystallin, gamma-3 [*Homo* sa	1.39E−10	10518338	3	3	1
106	succinate-CoA ligase, ADP-forming, beta subunit; SCS-betaA for ATP spe⑦	5.79E−03	11321583	1	3	1
107	alpha-2-plasmin inhibitor; alpha-2-antiplasmin [*Homo sapiens*]	7.14E−12	11386143	1	3	3
108	H4 histone family, member E [*Homo sapiens*]	2.50E−06	11415030	1	3	3
109	fibrinogen, gamma chain isoform gamma-B precursor [*Homo sapiens*]	3.10E−11	11761633	6	3	2
110	pantothenate kinase 3; pantothenic acid kinase [*Homo sapiens*]	1.01E−03	13375789	1	3	2
111	crystallin, gamma D; gamma crystallin 4 [*Homo* sap	1.67E−14	13377002	3	3	1
112	retbindin [*Homo sapiens*]	1.13E−06	13899247	1	3	3
113	ubiquitin specific protease 15; deubiquitinating enzyme [*Homo sapiens*]	6.90E−04	14149627	1	3	2
114	tubulin alpha 6 [*Homo sapiens*]	4.32E−08	14389309	1	3	3
115	leucine-rich alpha-2-glycoprotein 1; 2310031E04Rik	8.88E−15	16418467	2	3	3
116	peptidoglycan recognition protein L precursor [*Homo sapiens*]	3.34E−05	21361845	1	3	3
117	brain creatine kinase; creatine kinase B-chain; c	1.13E−13	21536286	3	3	3
118	junctophilin 1; mitsugumin72; junctophilin type1 [*Homo sapiens*]	2.43E−03	21735575	1	3	2
119	zinc finger protein 560 [*Homo sapiens*]	1.43E−03	22749003	1	3	2
120	DEAH (Asp-Glu-Ala-His) box polypeptide 29; nuclei	2.79E−03	26553432	1	3	3
121	nucleoporin 210; nuclear pore membrane glycoprotein 210 [*Homo sapiens*]	2.84E−03	27477134	1	3	3
122	PREDICTED: similar to Von Ebners gland protein pr	1.42E−10	27498839	2	3	3
123	hypothetical protein FLJ32440 [*Homo sapiens*]	3.97E−05	27734761	1	3	2
124	plexin B3; plexin-B3; plexin 6 [*Homo sapiens*]	5.99E−04	29336063	1	3	1
125	CP110 protein [*Homo sapiens*]	6.19E−04	31543018	2	3	3
126	pyruvate kinase 3 isoform 1; thyroid hormone-bind	1.07E−10	33286418	2	3	3
127	nucleoporin 214 kDa; nuclear pore complex protein	1.49E−04	33946327	1	3	3
128	bullous pemphigoid antigen 1 isoform 1; bullous p	9.37E−03	34577047	1	3	3
129	PREDICTED: similar to KIAA0663 gene product [*Homo*	3.85E−04	41058123	1	3	3
130	calsyntenin 1; non-classical cadherin XB31alpha1;	1.69E−08	41281561	1	3	3
131	amyloid beta A4 protein precursor, isoform b; pro	6.60E−05	41406055	1	3	3
132	PREDICTED: KIAA1030 protein [*Homo sapiens*]	6.08E−04	42659643	1	3	3
133	KIAA0317 [*Homo sapiens*]	1.98E−03	42734315	1	3	2
134	PREDICTED: similar to sin3 associated polypeptide p18 [*Homo sapiens*]	4.51E−04	51461003	1	3	3
135	PREDICTED: KIAA0367 protein [*Homo sapiens*]	1.19E−03	51467193	1	3	3
136	PREDICTED: similar to transcription elongation fa⑦	2.45E−03	51467523	1	3	3
137	complement component 9 [*Homo sapiens*]	2.66E−05	4502511	1	2	2
138	centromere protein C 1; Centromere autoantigen C1 [*Homo sapiens*]	1.23E−03	4502779	1	2	2
139	phakinin; beaded filament protein CP49; bfps2, Cyto	9.69E−12	4502995	2	2	1
140	cystatin S precursor; cystatin 4 [*Homo sapiens*]	2.01E−06	4503109	1	2	2
141	coagulation factor II precursor; prothrombin [*Homo*	1.03E−09	4503635	1	2	2
142	semaphorin 7A; sema domain, immunoglobulin domain	1.10E−06	4504237	2	2	2
143	insulin-like growth factor binding protein 7 [*Homo*	3.61E−06	4504619	1	2	2
144	neogenin homolog 1; neogenin (chicken) homolog 1 [*Homo sapiens*]	3.72E−03	4505375	1	2	2
145	prostatic binding protein; phosphatidylethanolamine	1.66E−10	4505621	2	2	2
146	phosphoglycerate kinase 1 [*Homo sapiens*]	7.80E−06	4505763	2	2	2
147	transketolase [*Homo sapiens*]	3.22E−05	4507521	2	2	2
148	biotinidase precursor [*Homo sapiens*]	4.83E−07	4557373	1	2	2
149	defensin, alpha 1 preproprotein; myeloid-related s⑦	1.30E−04	4758146	1	2	2
150	dual specificity phosphatase 8; serine/threonine specific protein phosp	4.25E−05	4758212	1	2	2
151	golgi autoantigen, golgin subfamily b, macrogolgin (with transmembrane	5.05E−04	4758454	1	2	2
152	growth factor receptor-bound protein 14 [*Homo sapiens*]	3.32E−03	4758478	1	2	2
153	nebulin [*Homo sapiens*]	5.35E−03	4758794	1	2	2
154	general transcription factor IIH, polypeptide 1 (62 kD subunit) [*Homo* sa	5.41E−03	4885365	1	2	1
155	macrophage erythroblast attacher; erythroblast macrophage protein [*Homo*	4.84E−03	5031685	1	2	1
156	galectin 3 binding protein; L3 antigen; Mac-2-bind	2.94E−09	5031863	1	2	2
157	elongation factor RNA polymerase II; ELL gene (11-	6.28E−03	5729812	1	2	2
158	chondromodulin I precursor; chondromodulin; BRICHOS	4.77E−05	5901932	1	2	2
159	coatomer protein complex, subunit gamma 2; coat pr	7.04E−04	6912320	1	2	2
160	WW domain binding protein 11; Npw38-binding protei	4.17E−03	7706501	1	2	2

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
161	H2A histone family, member A; histone H2AE [*Homo*	4.17E-04	10645195	1	2	2
162	retinoschisis (X-linked, juvenile) 1 [*Homo sapiens*	6.93E-09	10835083	1	2	2
163	metallothionein 1G [*Homo sapiens*]	6.02E-06	10835230	1	2	2
164	ubiquitin B precursor; polyubiquitin B [*Homo* sapie	1.49E-05	11024714	2	2	2
165	insulin-like growth factor binding protein 6 [*Homo*	5.46E-04	11321593	1	2	2
166	prosaposin (variant Gaucher disease and variant metachromatic leukodys?	1.13E-04	11386147	1	2	2
167	kallikrein 14 preproprotein; kallikrein-like protein 6 [*Homo sapiens*]	3.25E-04	11545747	1	2	1
168	fibrinogen, alpha chain isoform alpha preproprotei	7.24E-08	11761629	5	2	2
169	dynein, axonemal, intermediate polypeptide 2; dyn	1.31E-03	12718866	1	2	2
170	mitogen-activated protein kinase associated prote	1.75E-03	13129138	1	2	2
171	alpha 1 type II collagen isoform 1; collagen II, a	4.47E-06	13435125	2	2	2
172	serum amyloid A2 [*Homo sapiens*]	2.77E-06	13540475	2	2	2
173	hypothetical protein MGC4308 [*Homo sapiens*]	7.51E-03	14150167	1	2	2
174	lacritin precursor [*Homo sapiens*]	6.51E-04	15187164	1	2	2
175	ankyrin repeat domain 30A; breast cancer antigen NY-BR-1 [*Homo sapiens*	3.16E-03	16506285	1	2	2
176	ATPase, H+ transporting, lysosomal accessory prote	8.95E-10	17136148	1	2	2
177	keratin 4; Keratin-4; cytokeratin 4; keratin, typ	4.40E-05	17318574	1	2	2
178	tubulin, alpha 2 isoform 2 [*Homo sapiens*]	2.17E-06	17921991	1	2	2
179	vacuolar protein sorting 18 [*Homo sapiens*]	3.62E-03	17978485	1	2	2
180	vitronectin precursor; serum spreading factor; somatomedin B; compleme?	4.77E-05	18201911	1	2	2
181	SH3-domain binding protein 2; Cherubism [*Homo* sap	1.87E-03	19923155	1	2	2
182	proprotein convertase subtillsin/kexin type 2; sub	1.13E-08	20336244	1	2	2
183	chondroitin sulfate proteoglycan 2 (versican) [Hom	1.19E-10	21361116	2	2	2
184	aldehyde dehydrogenase 1A1; aldehyde dehydrogenase	2.97E-07	21361176	3	2	1
185	tubulin, beta, 5 [*Homo sapiens*]	1.26E-12	21361322	1	2	2
186	Tax1 (human T-cell leukemia virus type I) binding protein 1; tax1-bind	1.14E-03	21361682	1	2	2
187	RIC3 protein [*Homo sapiens*]	5.90E-03	21362040	1	2	2
188	hypothetical protein MGC27016 [*Homo sapiens*]	1.48E-03	21450675	1	2	1
189	zinc finger protein 625 [*Homo sapiens*]	6.05E-03	21687161	1	2	1
190	tyrosine 3/tryptophan 5-monooxygenase activation	5.63E-10	21735625	1	2	2
191	cathepsin B preproprotein; APP secretase; preproca	2.76E-05	22538431	1	2	2
192	spondin 1, extracellular matrix protein; spondin	2.44E-04	24307905	1	2	2
193	sperm associated antigen 6 isoform 2; sperm flagellar protein; axoneme	2.37E-04	27262641	2	2	1
194	SNF2 histone linker PHD RING helicase; 2610103K11	9.92E-04	27436873	1	2	2
195	palmitoylated membrane protein 7 [*Homo sapiens*]	5.12E-03	27735101	1	2	2
196	eukaryotic translation initiation factor 2C, 3 isoform a; argonaute 3	3.35E-03	29294647	1	2	2
197	hypothetical protein LOC92912 [*Homo sapiens*]	2.50E-04	29789401	1	2	2
198	PDZ domain containing 3 isoform a; PDZ domain con	3.34E-05	30061507	1	2	2
199	testis-specific protein TSP-NY isoform a [*Homo sapiens*]	5.38E-03	30348972	1	2	2
200	phosphatidylinositol-4-phosphate 5-kinase, type I, gamma; phosphatidyl	3.65E-03	31317309	1	2	2
201	polymeric immunoglobulin receptor; hepatocellular	6.87E-12	31377806	4	2	2
202	RNA-binding protein regulatory subunit; oncogene	5.62E-10	31543380	1	2	1
203	hypothetical protein FLJ38973 [*Homo sapiens*]	1.93E-03	31581541	1	2	2
204	Rho family guanine-nucleotide exchange factor [Ho	4.32E-03	31742505	1	2	2
205	cytosolic ovarian carcinoma antigen 1 isoform b; APK1 antigen [*Homo* sa?	2.72E-03	32528291	1	2	2
206	PH domain-containing protein [*Homo sapiens*]	2.83E-04	33457316	1	2	2
207	frizzled-related protein; Fritz; Frzb-1; fre; friz	1.81E-03	38455388	1	2	2
208	serum amyloid A1 isoform 2; tumor protein p53 indu?	6.88E-14	40316910	2	2	2
209	PREDICTED: zinc finger, CCHC domain containing 11	9.18E-05	41107445	1	2	1
210	PREDICTED: similar to Phosphoglycerate mutase 1 (	7.24E-06	41149700	1	2	2
211	semaphorin 3D; collapsin 2 [*Homo sapiens*]	5.79E-04	41406086	1	2	2
212	PREDICTED: hypothetical protein XP_375631 [*Homo* sa	3.57E-03	42661664	1	2	2
213	similar to RIKEN cDNA 1110018M03 [*Homo sapiens*]	2.37E-03	42766422	1	2	2
214	myoglobin [*Homo sapiens*]	9.47E-07	44955885	1	2	2
215	hypothetical protein FLJ31322 [*Homo sapiens*]	1.29E-03	45387953	1	2	1
216	FLJ42220 protein [*Homo sapiens*]	4.37E-05	46409506	1	2	2
217	zinc finger, MYND domain containing 11 isoform b; adenovirus 5 E1A bin	2.30E-03	47078243	1	2	2
218	hypothetical protein LOC255189 [*Homo sapiens*]	2.73E-03	47106065	1	2	1
219	PREDICTED: similar to ribosomal protein L31 [*Homo sapiens*]	5.33E-04	51466239	1	2	2
220	PREDICTED: similar to Olfactory receptor 52L1 [*Homo sapiens*]	5.99E-03	51470915	1	2	1
221	PREDICTED: similar to submaxillary apomucin [*Homo*	5.14E-03	51471105	1	2	2
222	PREDICTED: similar to hect domain and RLD 2 [*Homo*	7.22E-04	51472707	1	2	2
223	PREDICTED: hypothetical protein LOC146177 [*Homo* s	9.52E-04	51472829	1	2	2
224	PREDICTED: hypothetical protein XP_497598 [*Homo* s	2.97E-03	51474534	1	2	2
225	PREDICTED: hypothetical protein XP_498867 [*Homo sapiens*]	1.37E-03	51475312	1	2	2
226	PREDICTED: similar to Piccolo protein (Aczonin) [*Homo sapiens*]	7.55E-04	51492882	1	2	2
227	acetyl-Coenzyme A acyltransferase 1; peroxisomal 3	3.11E-03	4501853	1	1	1
228	acetyl-Coenzyme A carboxylase beta [*Homo sapiens*]	4.23E-03	4501855	1	1	1
229	acyl-Coenzyme A oxidase 3, pristanoyl [*Homo sapiens*	6.97E-03	4501871	1	1	1
230	alkylglycerone phosphate synthase precursor [*Homo sapiens*]	5.09E-03	4501993	1	1	1
231	apolipoprotein B precursor; apoB-100; apoB-48 [Hom	2.74E-09	4502153	2	1	1

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
232	apolipoprotein D precursor [*Homo sapiens*]	5.32E−03	4502163	1	1	1
233	breast cancer 2, early onset; Fanconi anemia, comp	6.95E−03	4502451	1	1	1
234	complement component 1, r subcomponent [*Homo* sapie	3.42E−09	4502493	1	1	1
235	calbindin 2 full length protein isoform; calbindin	9.84E−05	4502543	1	1	1
236	calcium/calmodulin-dependent protein kinase IV; br	4.02E−03	4502557	1	1	1
237	corticosteroid binding globulin precursor; corticosteroid binding globu	1.35E−03	4502595	1	1	1
238	chromogranin B precursor; Chromogranin B (secretog	7.55E−07	4502807	1	1	1
239	cholinergic receptor, nicotinic, alpha polypeptide 2 (neuronal) [*Homo* s	3.30E−03	4502823	1	1	1
240	chloride channel 6 isoform CIC-6a [*Homo sapiens*]	3.56E−03	4502873	1	1	1
241	cellular repressor of E1A-stimulated genes [*Homo* sa	3.41E−06	4503037	1	1	1
242	cystatin B; stefin B; liver thiol proteinase inhib	4.26E−09	4503117	1	1	1
243	oral-facial-digital syndrome 1; chromosome X open	7.51E−05	4503179	1	1	1
244	dihydrofolate reductase [*Homo sapiens*]	5.05E−03	4503323	1	1	1
245	dihydropyrimidinase-like 2; collapsin response medi	2.11E−03	4503377	1	1	1
246	early growth response 1; nerve growth factor-induc	9.73E−03	4503493	1	1	1
247	enolase 1; MYC promoter-binding protein 1; non-neu	2.01E−04	4503571	1	1	1
248	coagulation factor XII precursor; Hageman factor [*Homo sapiens*]	4.68E−03	4503629	1	1	1
249	GDP dissociation inhibitor 1; mental retardation,	2.24E−09	4503971	1	1	1
250	glutaredoxin (thioltransferase) [*Homo sapiens*]	3.18E−05	4504025	1	1	1
251	gelsolin isoform a [*Homo sapiens*]	7.98E−03	4504165	1	1	1
252	general transcription factor IIE, polypeptide 2, b	7.03E−06	4504195	1	1	1
253	delta globin [*Homo sapiens*]	4.67E−03	4504351	1	1	1
254	complement factor H; H factor-1 (complement); fact	2.72E−06	4504375	1	1	1
255	interleukin 10 receptor, alpha precursor [*Homo sapiens*]	4.94E−03	4504633	1	1	1
256	interleukin 13 receptor, alpha 1 precursor; IL13 receptor alpha-1 chain	6.69E−03	4504647	1	1	1
257	inter-alpha (globulin) inhibitor H2; inter-alpha (	2.91E−03	4504783	1	1	1
258	lactate dehydrogenase C [*Homo sapiens*]	1.45E−07	4504973	1	1	1
259	lumican [*Homo sapiens*]	1.40E−04	4505047	1	1	1
260	phospholipase C, gamma 2 (phosphatidylinositol-spe	9.89E−03	4505871	1	1	1
261	protein kinase C substrate 80K-H; glucosidase II,	9.04E−03	4506077	1	1	1
262	pleiotrophin; heparin affin regulatory protein; hep	4.01E−05	4506281	1	1	1
263	RAN binding protein 3 isoform RANBP3-a; RAN-bindin	1.69E−03	4506409	1	1	1
264	retinaldehyde binding protein 1; Newfoundland rod-c	1.07E−08	4506541	1	1	1
265	ribosomal protein S4, Y-linked 1 Y isoform; 40S ribosomal protein S4, Y	8.87E−05	4506727	1	1	1
266	ryanodine receptor 2 [*Homo sapiens*]	9.67E−03	4506757	1	1	1
267	secretory leukocyte protease inhibitor precursor; W	4.40E−03	4507065	1	1	1
268	synuclein, gamma (breast cancer-specific protein 1)	1.25E−03	4507113	1	1	1
269	superoxide dismutase 3, extracellular [*Homo sapien*	3.79E−05	4507151	1	1	1
270	SRY (sex determining region Y)-box 4; SRY-related HMG-box gene 4; ecotr	5.28E−03	4507163	1	1	1
271	thyrotrophic embryonic factor; thyrotroph embryonic factor [*Homo sapien*	9.22E−03	4507431	1	1	1
272	triosephosphate isomerase 1 [*Homo sapiens*]	3.41E−07	4507645	1	1	1
273	transformation/transcription domain-associated pro	3.71E−03	4507691	1	1	1
274	vimentin [*Homo sapiens*]	6.52E−08	4507895	3	1	1
275	apolipoprotein C-III precursor [*Homo sapiens*]	1.13E−04	4557323	1	1	1
276	B-cell lymphoma protein 2 beta isoform [*Homo* sapie	2.71E−03	4557357	1	1	1
277	cystathionine-beta-synthase; serine sulfhydrase; be	6.11E−03	4557415	1	1	1
278	CD14 antigen precursor [*Homo sapiens*]	2.50E−04	4557417	1	1	1
279	down-regulated in adenoma protein; down-regulated	9.52E−03	4557535	1	1	1
280	fatty acid binding protein 1, liver; Fatty acid-bin	1.51E−05	4557577	1	1	1
281	fatty acid binding protein 5 (psoriasis-associated)	8.62E−03	4557581	1	1	1
282	galactosylceramidase precursor; galactocerebrosidase; Galactosylceramin	4.63E−04	4557613	1	1	1
283	potassium voltage-gated channel, shaker-related subfamily, member 1 [Ho	2.42E−03	4557685	1	1	1
284	keratin 9 [*Homo sapiens*]	1.89E−14	4557705	2	1	1
285	myosin light chain 2 [*Homo sapiens*]	5.53E−03	4557775	1	1	1
286	propionyl-Coenzyme A carboxylase, alpha polypeptid	8.42E−04	4557833	1	1	1
287	general transcription factor IIIC, polypeptide 1, alpha 220 kDa; general	9.27E−03	4753161	1	1	1
288	chimerin (chimaerin) 2; Chimerin 2 (GTPase-activating protein, rho, 3);	5.26E−03	4757980	1	1	1
289	coatomer protein complex, subunit beta 2 (beta pri	8.85E−03	4758032	1	1	1
290	cellular retinoic acid binding protein 1; cellular	1.25E−07	4758052	2	1	1
291	doublecortin and CaM kinase-like 1; doublecortin-I	9.42E−03	4758128	1	1	1
292	desmoplakin; desmoplakin (DPI, DPII) [*Homo sapiens*	1.81E−03	4758200	1	1	1
293	cadherin 15 preproprotein; M-cadherin; muscle-cadherin; myotubule-cadhe	4.15E−03	4826669	1	1	1
294	fragile X mental retardation-related protein 1; Fragile X mental retard	3.60E−03	4826736	1	1	1
295	insulysin; insulinase [*Homo sapiens*]	1.00E−02	4826770	1	1	1
296	serine (or cysteine) proteinase inhibitor, clade I	1.14E−03	4826904	1	1	1
297	aldolase C, fructose-bisphosphate; Aldolase C, fruc	1.31E−05	4885063	1	1	1
298	crystallin, gamma B; crystallin, gamma 1-2 [*Homo* sa	9.04E−06	4885157	1	1	1
299	A-kinase anchor protein 8; A-kinase anchor protein, 95 kDa [*Homo sapiens*	9.60E−03	5031579	1	1	1
300	mitochondrial ribosomal protein S31; imogen 38 [Ho	8.84E−03	5031787	1	1	1
301	lactate dehydrogenase A [*Homo sapiens*]	2.98E−03	5031857	1	1	1
302	LIM domain kinase 2 isoform 2a [*Homo sapiens*]	8.54E−03	5031869	1	1	1

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
303	milk fat globule-EGF factor 8 protein; lactadherin	4.40E−04	5174557	1	1	1
304	polycystic kidney disease and receptor for egg jel	9.42E−03	5174633	1	1	1
305	metallothionein 3 [*Homo sapiens*]	7.43E−04	5174762	1	1	1
306	ADP-ribosylation factor guanine nucleotide-exchange factor 2; brefeldin	8.25E−03	5453573	1	1	1
307	structural maintenance of chromosomes 2-like 1; structural maintenance	2.58E−03	5453591	1	1	1
308	polymerase (DNA directed), delta 2, regulatory subunit; polymerase (DNA	9.06E−03	5453924	1	1	1
309	translocase of inner mitochondrial membrane 23 (yeast) homolog; translo	5.15E−03	5454122	1	1	1
310	beta-1,3-N-acetylglucosaminyltransferase bGnT-6; i	1.65E−03	5802984	1	1	1
311	enolase 2; neurone-specific enolase; neuron specifi	3.25E−03	5803011	1	1	1
312	transaldolase 1; glycerone transferase; dihydroxya	5.62E−03	5803187	1	1	1
313	follistatin-like 1 precursor; follistatin-related p	3.56E−03	5901956	1	1	1
314	polypeptide N-acetylgalactosaminyltransferase 6; Ga	6.69E−03	6005766	1	1	1
315	proline rich 4 (lacrimal); lacrimal proline rich pr	2.37E−10	6005802	1	1	1
316	RAN binding protein 2; nucleoporin 358; nuclear po	1.51E−03	6382079	1	1	1
317	golgi autoantigen, golgin subfamily a, 4; golgin-2	2.90E−03	6715600	1	1	1
318	low density lipoprotein-related protein 2; megalin	3.07E−04	6806919	1	1	1
319	general transcription factor IIIC, polypeptide 3,	6.08E−03	6912398	1	1	1
320	rearranged L-myc fusion sequence; Zn-15 related [*Homo sapiens*]	8.08E−03	6912632	1	1	1
321	T-box 21; T-box expressed in T cells; T-cell-specific T-box transcripti?	2.05E−03	7019549	1	1	1
322	heparan sulfate proteoglycan 2; heparan sulfate pr	3.21E−07	7427517	1	1	1
323	golgi phosphoprotein 4; type II Golgi membrane prot	3.82E−03	7657138	1	1	1
324	MYB binding protein 1a; p53-activated protein-2 [*Homo sapiens*]	6.25E−03	7657351	1	1	1
325	sushi-repeat-containing protein, X-linked 2; sushi	4.60E−04	7657619	1	1	1
326	SH2 domain binding protein 1; TPR-containing, SH2-	4.93E−03	7661950	1	1	1
327	sparc/osteonectin, cwcv and kazal-like domains prot	8.35E−04	7662036	1	1	1
328	hepatoma-derived growth factor, related protein 3; hepatoma-derived gro	3.24E−03	7705320	1	1	1
329	F-box protein 40; muscle disease-related protein [*H*	3.51E−04	7706493	1	1	1
330	interphotoreceptor matrix proteoglycan 2; interpho	2.29E−03	7706717	1	1	1
331	TU12B1-TY protein [*Homo sapiens*]	1.82E−03	7706749	1	1	1
332	toll-like receptor 9 isoform A precursor [*Homo* sap	5.19E−03	8394456	1	1	1
333	hypothetical protein DKFZp434H2215 [*Homo sapiens*]	1.96E−03	8922138	1	1	1
334	mbt domain containing 1 [*Homo sapiens*]	7.70E−03	8923059	1	1	1
335	ankyrin repeat and SOCS box-containing 6 isoform 1 [*Homo sapiens*]	2.02E−03	8923516	1	1	1
336	hypothetical protein FLJ20574 [*Homo sapiens*]	3.10E−04	8923539	1	1	1
337	hypothetical protein FLJ20626 [*Homo sapiens*]	3.88E−03	8923582	1	1	1
338	ubinuclein 1 [*Homo sapiens*]	4.83E−03	9055374	1	1	1
339	DC12 protein [*Homo sapiens*]	3.52E−03	9910182	1	1	1
340	DC13 protein [*Homo sapiens*]	3.77E−03	9910184	1	1	1
341	S-adenosylhomocysteine hydrolase; adenosylhomocyst	9.58E−03	9951915	1	1	1
342	putatative 28 kDa protein [*Homo sapiens*]	7.35E−04	10047140	1	1	1
343	sodium channel, voltage-gated, type II, alpha 2; s	2.80E−03	10337597	1	1	1
344	nitric oxide synthase 1 (neuronal) [*Homo sapiens*]	3.81E−03	10835173	1	1	1
345	mitogen-activated protein kinase-activated protei	3.28E−03	10863901	1	1	1
346	tumor necrosis factor, alpha-induced protein 1 [*Homo sapiens*]	5.50E−03	10863937	1	1	1
347	tuberous sclerosis 2 isoform 2; tuberin isoform 1; tuberin isoform 2;	2.96E−04	10938008	1	1	1
348	ATP-binding cassette, sub-family F, member 1; ATP-binding cassette 50;	6.21E−03	10947135	1	1	1
349	meningioma expressed antigen 5 (hyaluronidase); hy	8.71E−03	11024698	1	1	1
350	guanine nucleotide-binding protein, beta-4 subuni	4.03E−04	11055998	1	1	1
351	bromodomain containing protein 3; open reading fr	2.19E−03	11067749	1	1	1
352	transforming, acidic coiled-coil containing prote	9.91E−03	11119414	1	1	1
353	protocadherin gamma subfamily B, 2 isoform 1 prec	5.25E−04	11128035	1	1	1
354	potassium channel, subfamily K, member 12; tandem pore domain potassiu?	4.26E−04	11545761	1	1	1
355	protease, serine, 22; protease, serine S1 family member 22; tryptase e?	5.01E−03	11545839	1	1	1
356	zinc finger protein 335; zinc-finger/leucine-zipp	1.73E−03	11560152	1	1	1
357	fibrinogen, beta chain preproprotein [*Homo sapiens*	2.19E−06	11761631	2	1	1
358	SH3 and multiple ankyrin repeat domains 1; somatostatin receptor-inter	8.27E−04	11968152	1	1	1
359	phosphoinositide-specific phospholipase C beta 1	4.07E−03	12083581	1	1	1
360	hypothetical protein FLJ13868 [*Homo sapiens*]	5.97E−03	12232403	1	1	1
361	hypothetical protein FLJ12998 [*Homo sapiens*]	1.16E−03	12232437	1	1	1
362	solute carrier family 39 (zinc transporter), member 6; LIV-1 protein,	3.83E−03	12751475	1	1	1
363	hypothetical protein CG003 [*Homo sapiens*]	7.59E−03	12957488	1	1	1
364	DNA methyltransferase 1-associated protein 1 [Hom	4.68E−03	13123776	1	1	1
365	core-binding factor, beta subunit isoform 2; SL3/	6.19E−04	13124873	1	1	1
366	betaine-homocysteine methyltransferase 2 [*Homo* sa	9.24E−03	13162290	1	1	1
367	hypothetical protein FLJ12875 [*Homo sapiens*]	3.42E−03	13375705	1	1	1
368	tubulin, alpha 4 [*Homo sapiens*]	6.95E−05	13376539	1	1	1
369	hypothetical protein FLJ21477 [*Homo sapiens*]	4.46E−03	13376749	1	1	1
370	serine (or cysteine) proteinase inhibitor, clade	2.37E−03	13489087	1	1	1
371	integrin-linked kinase-associated protein phosphat	9.52E−03	13540531	1	1	1
372	testis expressed sequence 13A [*Homo sapiens*]	4.60E−03	13775180	1	1	1
373	Rho GTPase activating protein 24 [*Homo sapiens*]	2.35E−03	13775230	1	1	1

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
374	hypothetical protein DKFZp434H0115 [*Homo sapiens*]	7.76E−04	13899233	1	1	1
375	mitochondrial ribosomal protein L32 [*Homo sapiens*	5.55E−03	13994261	1	1	1
376	spermiogenesis associated serine/threonine kinase	8.60E−03	14042947	1	1	1
377	coiled-coil domain containing 8 [*Homo sapiens*]	5.64E−03	14042972	1	1	1
378	heterogeneous nuclear ribonucleoprotein A1 isoform	3.75E−07	14043070	1	1	1
379	heterogeneous nuclear ribonucleoprotein A2/B1 iso	6.82E−06	14043072	1	1	1
380	heterogeneous nuclear ribonucleoprotein C isoform	1.55E−04	14110428	1	1	1
381	stromal cell-derived factor 2 precursor [*Homo* sapi	1.79E−03	14141195	1	1	1
382	latrophilin 3; latrophilin homolog 3 (cow); lectomedin 3 [*Homo sapiens*	9.52E−03	14149677	1	1	1
383	hypothetical protein DKFZp564J047 [*Homo sapiens*]	8.44E−03	14149781	1	1	1
384	solute carrier family 37 (glycerol-3-phosphate tra	5.94E−04	14150047	1	1	1
385	hypothetical protein MGC10854 [*Homo sapiens*]	6.29E−03	14150056	1	1	1
386	heterogeneous nuclear ribonucleoprotein K isoform	2.08E−05	14165435	1	1	1
387	hypothetical protein MGC10882 [*Homo sapiens*]	6.22E−05	14249240	1	1	1
388	internexin neuronal intermediate filament protein,	3.10E−06	14249342	1	1	1
389	hypothetical protein FLJ14768 [*Homo sapiens*]	5.53E−03	14249548	1	1	1
390	postreplication repair protein hRAD18p; RAD18, *S. cerevisiae*, homolog	2.76E−03	14550405	1	1	1
391	complement component 2 precursor; C3/C5 convertase [*Homo sapiens*]	8.23E−04	14550407	1	1	1
392	cadherin 2, type 1 preproprotein; cadherin 2, N-c	5.73E−05	14589889	1	1	1
393	centromere protein F (350/400 kD); centromere prot	9.77E−03	14670381	1	1	1
394	TATA box-binding protein-associated factor 2F; TA	1.97E−04	14717407	1	1	1
395	collagen, type VI, alpha 1 precursor; collagen VI	1.85E−05	15011913	1	1	1
396	brain expressed, X-linked 1; uncharacterized hypo	6.54E−04	15147228	1	1	1
397	keratin, hair, basic, 4; hard keratin, type II, 4	2.14E−03	15431316	1	1	1
398	keratin 6 irs [*Homo sapiens*]	1.43E−05	15618995	1	1	1
399	vacuolar protein sorting 13A isoform B; chorein;	3.86E−03	15619008	1	1	1
400	E1A binding protein p400; CAGH32 protein; trinucleotide repeat contain	4.47E−03	15805014	1	1	1
401	cadherin 10, type 2 preproprotein; cadherin-10; T2-cadherin [*Homo* sapi	9.94E−03	16306530	1	1	1
402	cadherin 11, type 2 isoform 1 preproprotein; oste	6.03E−03	16306532	1	1	1
403	USH3A protein isoform c; clarin-1 [*Homo sapiens*]	6.20E−03	16506281	1	1	1
404	ubiquitin specific protease 28 [*Homo sapiens*]	8.91E−03	16507200	1	1	1
405	talin 1 [*Homo sapiens*]	6.05E−03	16753233	1	1	1
406	fibronectin 1 isoform 3 preproprotein; cold-insol	2.17E−03	16933542	1	1	1
407	VGF nerve growth factor inducible precursor; neuro	8.47E−03	17136078	1	1	1
408	keratin 1; Keratin-1; cytokeratin 1; hair alpha pr	5.28E−05	17318569	2	1	1
409	PREDICTED: KIAA0767 protein [*Homo sapiens*]	8.86E−03	17485400	1	1	1
410	vacuolar protein sorting 35; maternal-embryonic 3; vacuolar protein so	4.10E−03	17999541	1	1	1
411	protein tyrosine phosphatase, non-receptor type 3	7.93E−03	18104986	1	1	1
412	GRB2-associated binding protein 2 isoform a; Grb2	3.47E−05	18105042	1	1	1
413	PREDICTED: similar to synaptotagmin-like protein	9.42E−03	18562480	1	1	1
414	alpha 1 type XV collagen precursor; collagen XV,	1.61E−03	18641350	1	1	1
415	synaptosomal-associated protein 25 isoform SNAP25A	8.87E−03	18765733	1	1	1
416	protein tyrosine phosphatase, receptor type, K pr	1.04E−03	18860902	1	1	1
417	RAC/CDC42 exchange factor isoform 2 [*Homo sapiens*]	4.60E−03	19311008	1	1	1
418	actin related protein M1 [*Homo sapiens*]	9.72E−03	19549325	1	1	1
419	oxysterol-binding protein-like 1A isoform B; oxys	8.02E−03	19718741	1	1	1
420	solute carrier family 4, sodium bicarbonate cotra	1.33E−03	19923176	1	1	1
421	Jumonji, AT rich interactive domain 1B (RBP2-like	3.81E−03	19923370	2	1	1
422	adenylate kinase 3 alpha like; adenylate kinase 6	8.35E−03	19923437	1	1	1
423	SLAM family member 7; CD2-like receptor activating cytotoxic cells; 19	5.67E−03	19923572	1	1	1
424	hypothetical protein BC008207 [*Homo sapiens*]	5.13E−03	19923911	1	1	1
425	hypothetical protein BC011981 [*Homo sapiens*]	6.90E−03	19923935	1	1	1
426	TBP-associated factor 9L; neuronal cell death-rel	6.83E−03	20070280	1	1	1
427	numb homolog; numb (*Drosophila*) homolog [*Homo* sapi	4.19E−03	20070356	1	1	1
428	toll-like receptor 8 isoform 1 [*Homo sapiens*]	2.90E−03	20302166	1	1	1
429	ataxia telangiectasia mutated protein isoform 1;	8.37E−03	20336203	1	1	1
430	proprotein convertase subtilisin/kexin type 5 preproprotein; protease	1.54E−04	20336246	1	1	1
431	DEAH (Asp-Glu-Ala-His) box polypeptide 30 isoform	3.17E−03	20336290	1	1	1
432	PREDICTED: KIAA1604 protein [*Homo sapiens*]	8.01E−04	20536216	1	1	1
433	PREDICTED: PTPRF interacting protein, binding pro	7.54E−03	20561108	1	1	1
434	mitogen-activated protein kinase 10 isoform 3; MAP kinase; JNK3 alpha	7.21E−03	20986506	1	1	1
435	Kruppel-like factor 12 isoform a; KLF12 zinc fing	4.42E−04	21071074	1	1	1
436	testis nuclear RNA-binding protein [*Homo sapiens*]	5.72E−03	21245124	1	1	1
437	T-cell activation kelch repeat protein [*Homo sapiens*]	5.41E−03	21245132	1	1	1
438	ubiquitin carboxyl-terminal esterase L1 (ubiquiti	1.47E−04	21361091	1	1	1
439	enhancer of zeste 2 isoform a; enhancer of zeste	8.14E−04	21361095	1	1	1
440	four and a half LIM domains 1; Four-and-a-half LI	2.85E−03	21361122	1	1	1
441	CTP: phosphocholine cytidylyltransferase b [*Homo* s	8.34E−03	21361202	1	1	1
442	brain glycogen phosphorylase; glycogen phosphoryl	1.32E−03	21361370	1	1	1
443	BPY2 interacting protein 1; chromosome 19 open re	3.61E−03	21361668	1	1	1
444	transient receptor potential cation channel, subfamily M, member 8 [Ho	3.58E−04	21361691	1	1	1

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
445	PAP associated domain containing 1 [*Homo sapiens*]	4.69E−04	21361704	1	1	1
446	hypothetical protein FLJ10350 [*Homo sapiens*]	1.61E−04	21361781	1	1	1
447	DnaJ (Hsp40) homolog, subfamily C, member 1 [*Homo sapiens*]	3.37E−03	21361912	1	1	1
448	T-cell immunomodulatory protein [*Homo sapiens*]	2.47E−05	21361933	1	1	1
449	chromosome 10 open reading frame 87; Em: AC061711.1 [*Homo sapiens*]	4.19E−03	21389373	1	1	1
450	protease, serine, 15; Lon protease-like protein;	9.76E−03	21396489	1	1	1
451	immunoglobulin J chain [*Homo sapiens*]	2.74E−06	21489959	1	1	1
452	formyltetrahydrofolate dehydrogenase isoform a [H	1.91E−03	21614513	1	1	1
453	UDP-N-acetyl-alpha-D-galactosamine: polypeptide N-acetylgalactosaminylt?	3.79E−03	21686971	1	1	1
454	similar to hypothetical protein FLJ13659 [*Homo* sa	9.12E−03	21687266	1	1	1
455	lipoyltransferase 1 [*Homo sapiens*]	4.13E−03	21729878	1	1	1
456	sidekick 2; *Drosophila* sidekick-like; chicken sid	8.27E−03	21735577	1	1	1
457	PREDICTED: KIAA0882 protein [*Homo sapiens*]	8.39E−04	22042713	1	1	1
458	PREDICTED: follistatin-like 4 [*Homo sapiens*]	5.31E−03	22049346	1	1	1
459	NFAT activation molecule 1 precursor; calcinerin/	2.68E−03	22095335	1	1	1
460	ankyrin repeat and SOCS box-containing protein 12	1.55E−04	22208955	2	1	1
461	A-kinase anchor protein 9 isoform 2; A-kinase anc	7.07E−03	22538387	1	1	1
462	hypothetical protein DKFZp547B1713 [*Homo sapiens*]	4.35E−03	22748815	1	1	1
463	hypothetical protein FLJ35725 [*Homo sapiens*]	2.51E−03	22749135	1	1	1
464	zinc finger protein 553 [*Homo sapiens*]	8.94E−03	22749325	1	1	1
465	hypothetical protein FLJ25369 [*Homo sapiens*]	1.38E−04	22749357	1	1	1
466	aldehyde dehydrogenase 3 family, member A1; aldehy	3.34E−03	22907049	1	1	1
467	glutathione S-transferase M1 isoform 1; HB subuni	2.98E−03	23065544	1	1	1
468	elongation of very long chain fatty acids like 3 [*Homo sapiens*]	1.06E−03	23097310	1	1	1
469	hypothetical protein FLJ37440 [*Homo sapiens*]	9.41E−03	23397471	1	1	1
470	vitelliform macular dystrophy 2-like 2; bestrophin 4 [*Homo sapiens*]	6.11E−03	23397576	1	1	1
471	GREB1 protein isoform a; gene regulated by estrog	3.50E−03	23397642	1	1	1
472	mirror-image polydactyly 1; mirror-image polydact	9.72E−03	23503325	1	1	1
473	heat shock 70 kDa protein 8 isoform 2; heat shock c	4.64E−03	24234686	1	1	1
474	cytoplasmic FMR1 interacting protein 1; selective hybridizing clone (m?	1.25E−03	24307969	1	1	1
475	serine/threonine kinase 36 (fused homolog, *Drosophila*); serine/threoni··	2.26E−03	24308123	1	1	1
476	similar to hypothetical protein FLJ10883 [*Homo* sa	2.09E−03	24308386	1	1	1
477	MDN1, midasin homolog [*Homo sapiens*]	5.39E−03	24415404	1	1	1
478	steroid dehydrogenase-like [*Homo sapiens*]	2.41E−03	24432037	1	1	1
479	homeobox protein A5; homeobox protein HOXA5; home	2.18E−03	24497517	1	1	1
480	homeobox protein A10 isoform b; homeobox protein H	2.19E−03	24497551	1	1	1
481	aldo-keto reductase family 1, member C3; hydroxys	1.28E−03	24497583	1	1	1
482	myosin IIIA; deafness, autosomal recessive 30 [*Homo sapiens*]	9.51E−04	24586657	1	1	1
483	Y chromosome chromodomain protein 1 isoform a; te	3.74E−03	25453481	1	1	1
484	chromosome 19 open reading frame 21 [*Homo sapiens*	9.72E−03	27735067	1	1	1
485	membrane associated guanylate kinase interacting protein-like 1 [*Homo*	9.00E−03	27735139	1	1	1
486	chromosome 14 open reading frame 8; p25 beta [*Homo sapiens*]	8.89E−03	27777659	1	1	1
487	nuclear receptor subfamily 4, group A, member 3 is	6.11E−03	27894355	1	1	1
488	notch4 preproprotein; Notch (*Drosophila*) homolog 4 [*Homo sapiens*]	5.09E−04	27894370	1	1	1
489	cell adhesion molecule with homology to L1CAM pre	2.66E−03	27894376	1	1	1
490	zinc finger protein 545 [*Homo sapiens*]	5.96E−03	28274686	1	1	1
491	A-gamma globin; hemoglobin gamma-a chain; Hemoglo	4.02E−05	28302131	2	1	1
492	cell cycle progression 1; cell cycle progression	7.64E−03	28395035	1	1	1
493	Bardet-Biedl syndrome 1 [*Homo sapiens*]	2.36E−03	28395045	1	1	1
494	KIAA1404 protein [*Homo sapiens*]	3.58E−03	28626521	1	1	1
495	zinc finger, CW-type with coiled-coil domain 3; n	9.24E−03	28872812	1	1	1
496	TR4 orphan receptor associated protein TRA16; rep	5.65E−03	28882043	1	1	1
497	PREDICTED: similar to Tetratricopeptide repeat pr	3.15E−03	29735853	1	1	1
498	PREDICTED: huntingtin interacting protein-1-relat	3.98E−03	29744338	1	1	1
499	H63 breast cancer expressed gene isoform a; gene associated with HER-2	1.59E−03	29826289	1	1	1
500	hypothetical protein FLJ40125 [*Homo sapiens*]	5.33E−03	30425418	1	1	1
501	neuroligin 2 [*Homo sapiens*]	4.50E−03	30840978	1	1	1
502	family with sequence similarity 29, member A [*Homo sapiens*]	1.71E−04	31377562	1	1	1
503	zinc finger protein 606 [*Homo sapiens*]	9.52E−04	31377839	1	1	1
504	heat shock protein apg-1 [*Homo sapiens*]	4.66E−04	31541941	1	1	1
505	inter-alpha (globulin) inhibitor H4 (plasma Kalli	1.48E−08	31542984	2	1	1
506	hypothetical protein MGC5601; similar to acyl-CoA dehydrogenase [*Homo*	5.87E−04	31543201	1	1	1
507	phosphoglycerate kinase 2; phosphoglycerate kinas	1.23E−06	31543397	1	1	1
508	cutaneous T-cell lymphoma tumor antigen se70-2 [*H*	5.02E−03	31652264	1	1	1
509	hypothetical protein LOC200186 [*Homo sapiens*]	5.40E−03	32171215	1	1	1
510	Ral GEF with PH domain and SH3 binding motif 2; Ral-A exchange factor	3.25E−03	32441283	1	1	1
511	peroxiredoxin 3 isoform b; antioxidant protein 1; thioredoxin-dependen?	9.08E−03	32483377	1	1	1
512	cytosolic phosphoenolpyruvate carboxykinase 1; phosphoenolpyruvate car?	4.79E−03	32483401	1	1	1
513	HECT domain containing 1 [*Homo sapiens*]	2.40E−03	32698702	1	1	1
514	cardiomyopathy associated 5; 2310076E16Rik [*Homo sapiens*]	8.25E−03	32698780	1	1	1
515	bromodomain adjacent to zinc finger domain, 1A isoform a; ATP-dependen?	1.48E−03	32967603	1	1	1

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
516	TUDOR gene similar [*Homo sapiens*]	7.14E−03	32996737	1	1	1
517	glycosyltransferase-like 1B; ortholog of mouse glycosyltransferase-lik	9.33E−03	33285008	1	1	1
518	biliverdin reductase A [*Homo sapiens*]	1.86E−03	33589854	1	1	1
519	phospholipase C gamma 1 isoform b; phospholipase	3.00E−03	33598946	1	1	1
520	LIM domain only 7; LOMP protein; zinc-finger doma	1.21E−03	33598968	1	1	1
521	a disintegrin and metalloproteinase with thrombos	2.96E−03	33624885	1	1	1
522	transmembrane channel-like 7 [*Homo sapiens*]	5.84E−03	33636691	1	1	1
523	hypothetical protein MGC35261 [*Homo sapiens*]	1.07E−03	33859793	1	1	1
524	kelch-like 8 [*Homo sapiens*]	2.43E−03	34101268	1	1	1
525	hypothetical protein MGC20781 [*Homo sapiens*]	4.52E−03	34147472	1	1	1
526	zinc finger protein 135 (clone pHZ-17); zinc finger protein 61 [*Homo* s	8.75E−03	34419633	1	1	1
527	alcohol dehydrogenase 1B (class I), beta polypept	6.39E−06	34577061	1	1	1
528	fibulin 1 isoform C precursor [*Homo sapiens*]	4.72E−06	34734062	1	1	1
529	ubiquitin specific protease 36 [*Homo sapiens*]	6.71E−04	35250686	1	1	1
530	nudix (nucleoside diphosphate linked moiety X)-type motif 11 [*Homo* sap	4.64E−03	37221177	1	1	1
531	sodium-dependent organic anion transporter [*Homo sapiens*]	6.81E−05	37537552	1	1	1
532	PREDICTED: intracellular membrane-associated calc	1.19E−03	37538661	1	1	1
533	PREDICTED: similar to pMesogenin1 [*Homo sapiens*]	5.26E−03	37539465	1	1	1
534	PREDICTED: similar to RIKEN cDNA 2210009G21 [*Homo sapiens*]	4.97E−03	37556081	1	1	1
535	KIAA0625 protein [*Homo sapiens*]	5.44E−03	37620159	1	1	1
536	AT-hook transcription factor; AT-hook transcripti	6.81E−03	37620171	1	1	1
537	SATB family member 2; two cut domains-containing	3.24E−03	38016202	1	1	1
538	similar to golgi autoantigen, golgin subfamily a,	8.29E−03	38044110	1	1	1
539	ring finger protein 31 [*Homo sapiens*]	8.40E−03	35045940	1	1	1
540	sister-of-mammalian grainyhead protein isoform 1;	4.14E−03	38049007	1	1	1
541	SET and MYND domain containing 1; CD8 beta opposi	2.46E−03	38093643	1	1	1
542	UNC13 (*C. elegans*)-like; homolog of rat Munc13 (d	6.80E−03	38176154	1	1	1
543	kelch-like 17; actinfilin [*Homo sapiens*]	8.82E−03	38194229	1	1	1
544	rotatin [*Homo sapiens*]	1.91E−03	38201696	1	1	1
545	hypothetical protein FLJ12178 [*Homo sapiens*]	2.93E−03	38202219	1	1	1
546	DEAD (Asp-Glu-Ala-Asp) box polypeptide 18; Myc-re	6.32E−03	38327634	1	1	1
547	FLJ46072 protein [*Homo sapiens*]	7.24E−03	38348290	1	1	1
548	FLJ46156 protein [*Homo sapiens*]	1.33E−03	38348312	1	1	1
549	inter-alpha (globulin) inhibitor HS-like; ITI-lik	4.05E−03	38348336	1	1	1
550	LOC161577 protein [*Homo sapiens*]	4.15E−03	38348356	1	1	1
551	lipocalin 2 (oncogene 24p3) [*Homo sapiens*]	2.38E−11	38455402	3	1	1
552	hypothetical protein LOC168850 [*Homo sapiens*]	6.17E−03	39753953	1	1	1
553	KIAA0052 [*Homo sapiens*]	1.24E−05	39930353	1	1	1
554	hypothetical protein BC013767 [*Homo sapiens*]	8.80E−10	39930521	1	1	1
555	KIAA1033 protein [*Homo sapiens*]	6.37E−03	40018629	1	1	1
556	formin-like 3 isoform 1; WW domain binding protei	1.28E−03	40217839	1	1	1
557	heat shock 90 kDa protein 1, alpha; heat shock 90k	2.15E−05	40254816	1	1	1
558	hypothetical protein FLJ10706 [*Homo sapiens*]	7.51E−03	40254931	1	1	1
559	zinc finger protein 295 [*Homo sapiens*]	8.35E−03	40254945	1	1	1
560	hypothetical protein FLJ21019 [*Homo sapiens*]	7.94E−03	40255047	1	1	1
561	hypothetical protein MGC34732 [*Homo sapiens*]	9.92E−05	40255180	1	1	1
562	retinitis pigmentosa 1-like 1 [*Homo sapiens*]	5.54E−03	40255278	1	1	1
563	thrombospondin 2 precursor [*Homo sapiens*]	6.85E−03	40317628	1	1	1
564	PREDICTED: similar to Triosephosphate isomerase (T	1.24E−05	41058276	1	1	1
565	PREDICTED: TBP-interacting protein [*Homo sapiens*]	6.46E−03	41144277	1	1	1
566	PREDICTED: hypothetical protein LOC285335 [*Homo sapiens*]	2.58E−03	41146536	1	1	1
567	PREDICTED: hypothetical protein XP_370638 [*Homo* s	3.28E−03	41149556	1	1	1
568	PREDICTED: similar to serologically defined colon	4.05E−03	41150943	1	1	1
569	PREDICTED: agrin [*Homo sapiens*]	6.20E−04	41151826	1	1	1
570	U5 snRNP-specific protein, 116 kD [*Homo sapiens*]	1.88E−03	41152056	1	1	1
571	PREDICTED: KIAA1549 protein [*Homo sapiens*]	8.65E−03	41199251	1	1	1
572	neuronal cell adhesion molecule; Bravo [*Homo* sapie	5.84E−07	41281389	1	1	1
573	importin 13; Ran binding protein 13; karyopherin 13 [*Homo sapiens*]	1.49E−04	41281425	1	1	1
574	KIAA0433 protein [*Homo sapiens*]	2.12E−03	41281583	1	1	1
575	crumbs homolog 1 isoform II precursor; crumbs (Dr	2.45E−03	41327708	1	1	1
576	ATPase, Class II, type 9B; ATPase type IV, phosph	3.40E−03	41327760	1	1	1
577	Rho-specific guanine nucleotide exchange factor p	6.68E−03	41327769	1	1	1
578	proline arginine-rich end leucine-rich repeat prot	7.89E−03	41349454	1	1	1
579	PR domain containing 5 [*Homo sapiens*]	9.30E−03	41349476	1	1	1
580	calsyntenin 3; alcadein [*Homo sapiens*]	2.23E−03	42475534	1	1	1
581	nuclear receptor coactivator 7; estrogen receptor associated protein 1	6.25E−03	42476175	1	1	1
582	vacuolar protein sorting 13C protein [*Homo sapiens*]	3.48E−03	42544121	1	1	1
583	galectin 8 isoform a; Po66 carbohydrate binding p	2.45E−03	42544185	1	1	1
584	complement factor D preproprotein; adipsin; prope	1.32E−04	42544239	1	1	1
585	PREDICTED: myosin VI [*Homo sapiens*]	7.97E−03	42657517	1	1	1
586	PREDICTED: similar to tudor domain containing 6 protein [*Homo sapiens*]	1.40E−03	42657656	1	1	1

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
587	PREDICTED: hypothetical protein FLJ11811 [*Homo* sa	9.02E−03	42660246	1	1	1
588	PREDICTED: KIAA0753 gene product [*Homo sapiens*]	1.96E−03	42661078	1	1	1
589	PREDICTED: ProSAPiP2 protein [*Homo sapiens*]	3.74E−03	42661180	1	1	1
590	PREDICTED: similar to KIAA1074 protein [*Homo sapiens*]	9.67E−03	42661355	1	1	1
591	MAS-related GPR, member D; mas-related G protein-coupled MRGD [*Homo* sa⑦	2.48E−03	42794265	1	1	1
592	zinc finger protein 262; cell death inhibiting RN	4.80E−04	44890068	1	1	1
593	mitofusin 1 isoform 1; putative transmembrane GTPase [*Homo sapiens*]	9.39E−03	45269137	1	1	1
594	limbic system-associated membrane. protein [*Homo* sa	3.01E−05	45594240	1	1	1
595	ring finger and WD repeat domain 1 isoform 1; rin	9.78E−03	45594312	1	1	1
596	hypothetical protein FLJ21918 [*Homo sapiens*]	2.54E−03	45935393	1	1	1
597	bifunctional phosphopantetheine adenylyl transferase/dephospho CoA kin	7.22E−03	46048207	1	1	1
598	M-phase phosphoprotein 1; mitotic kinesin-like protein [*Homo sapiens*]	4.11E−03	46049114	1	1	1
599	KIAA1632 protein [*Homo sapiens*]	7.53E−03	46195733	1	1	1
600	unc-13 homolog D [*Homo sapiens*]	6.22E−03	46195765	1	1	1
601	latent transforming growth factor beta binding pr	3.69E−03	46249412	1	1	1
602	FLJ45949 protein [*Homo sapiens*]	9.25E−03	46409412	1	1	1
603	FLJ45248 protein [*Homo sapiens*]	7.98E−03	46409638	1	1	1
604	succinate receptor 1; G protein-coupled receptor	5.22E−03	47271392	1	1	1
605	leucine-zipper-like transcriptional regulator, 1;	5.48E−03	47717139	1	1	1
606	PREDICTED: similar to RIKEN cDNA 1700013E18 [*Homo*	2.07E−03	51458576	1	1	1
607	PREDICTED: similar to Fc receptor homolog expressed in B cells; Fc rec	7.24E−03	51458812	1	1	1
608	PREDICTED: hypothetical cardiac/skeletal muscle-e	1.41E−03	51458828	1	1	1
609	PREDICTED: similar to Putative dimethylaniline mo	1.85E−04	51458831	1	1	1
610	PREDICTED: similar to osteotesticular protein tyr	7.58E−03	51458868	1	1	1
611	PREDICTED: similar to elongation factor 1 delta [	2.64E−03	51459015	1	1	1
612	PREDICTED: similar to 40S ribosomal protein S7 (S8) [*Homo sapiens*]	2.47E−03	51459063	1	1	1
613	PREDICTED: hypothetical protein XP_498801 [*Homo* sa	5.30E−03	51459364	1	1	1
614	PREDICTED: similar to bA395L14.5 (novel phosphogl	5.85E−03	51460421	1	1	1
615	PREDICTED: hypothetical protein XP_295058 [*Homo* s	3.34E−03	51460438	1	1	1
616	PREDICTED: similar to Calpain 9 (Digestive tract-	4.22E−03	51460556	1	1	1
617	PREDICTED: similar to anaphase promoting complex	1.36E−03	51460657	1	1	1
618	PREDICTED: similar to Ig kappa variable region [Ho	1.87E−03	51460659	1	1	1
619	PREDICTED: similar to KIAA0445 protein [*Homo* sapi	4.00E−03	51461034	1	1	1
620	PREDICTED: twist homolog 2 [*Homo sapiens*]	4.71E−03	51463853	1	1	1
621	PREDICTED: hypothetical protein XP_498937 [*Homo sapiens*]	3.47E−03	51463864	1	1	1
622	PREDICTED: FYVE, RhoGEF and PH domain containing 5 [*Homo sapiens*]	9.64E−03	51463913	1	1	1
623	PREDICTED: KIAA0226 gene product [*Homo sapiens*]	9.79E−03	51464047	1	1	1
624	PREDICTED: similar to KIAA2033 protein [*Homo* sapi	7.94E−03	51464267	1	1	1
625	PREDICTED: hypothetical protein DKFZp762K222 [*Homo sapiens*]	7.47E−03	51464327	1	1	1
626	PREDICTED: similar to apopolysialoglycoprotein-	8.72E−03	51464378	1	1	1
627	PREDICTED: similar to RIKEN cDNA G431001E03 gene [*Homo sapiens*]	4.73E−03	51464570	1	1	1
628	PREDICTED: similar to FLJ14624 protein [*Homo* sapi	2.65E−03	51464636	1	1	1
629	PREDICTED: similar to bA110H4.2 (similar to membr	3.97E−03	51464932	1	1	1
630	PREDICTED: similar to membrane-spanning proteogly	5.64E−03	51464985	1	1	1
631	PREDICTED: T-box 18 [*Homo sapiens*]	5.28E−03	51465420	1	1	1
632	PREDICTED: hypothetical protein XP_499090 [*Homo* s	9.07E−03	51465873	1	1	1
633	PREDICTED: similar to KIAA0877 protein [*Homo* sapie	1.15E−03	51466121	1	1	1
634	PREDICTED: KIAA0543 protein [*Homo sapiens*]	1.13E−03	51466599	1	1	1
635	PREDICTED: hypothetical protein XP_499235 [*Homo* s	2.79E−03	51466834	1	1	1
636	PREDICTED: similar to Heat shock cognate 71 kDa pr	1.20E−03	51466978	1	1	1
637	PREDICTED: potassium channel, subfamily T, member	3.46E−03	51467170	1	1	1
638	PREDICTED: KIAA0368 protein [*Homo sapiens*]	3.74E−04	51467589	1	1	1
639	PREDICTED: similar to bA526D8.2 (novel protein si	6.51E−03	51467642	1	1	1
640	PREDICTED: neuregulin 3 [*Homo sapiens*]	6.31E−03	51467770	1	1	1
641	PREDICTED: similar to tigger transposable element	5.47E−03	51467790	1	1	1
642	PREDICTED: similar to centaurin, gamma-like family, 1 member 1; ARF GTPa	6.34E−03	51468155	1	1	1
643	PREDICTED: GCN1 general control of amino-acid synthesis 1-like 1 [*Homo*	2.23E−03	51471344	1	1	1
644	PREDICTED: similar to Golgi autoantigen, golgin subfamily A member 6 (	5.11E−03	51472431	1	1	1
645	PREDICTED: similar to Ig heavy chain V-I region HG3 precursor [*Homo* sa	7.98E−03	51472657	1	1	1
646	PREDICTED: similar to elongation factor Tu GTP bin	7.13E−03	51472670	1	1	1
647	PREDICTED: similar to ENSANGP0000013733 [*Homo* sa	3.85E−03	51473057	1	1	1
648	PREDICTED: hypothetical protein XP_370924 [*Homo* s	1.74E−03	51473154	1	1	1
649	PREDICTED: FLJ46675 protein [*Homo sapiens*]	6.48E−03	51474152	1	1	1
650	PREDICTED: similar to 60S ribosomal protein L23a [*Homo sapiens*]	6.71E−04	51474226	1	1	1
651	PREDICTED: 5-azacytidine induced 1 [*Homo sapiens*]	9.17E−03	51474428	1	1	1
652	PREDICTED: similar to contains transmembrane (TM)	4.67E−03	51474648	1	1	1
653	PREDICTED: KIAA1205 [*Homo sapiens*]	6.79E−03	51474761	1	1	1
654	PREDICTED: hypothetical protein LOC284371 [*Homo* s	1.79E−03	51474776	1	1	1
655	PREDICTED: SHC (Src homology 2 domain containing)	6.77E−03	51474945	1	1	1
656	PREDICTED: similar to eukaryotic translation elo	7.50E−03	51474994	1	1	1

TABLE 3.1-continued

Proteins identified in vitreous fluids (I)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
657	PREDICTED: similar to Ig kappa chain [*Homo sapien*	1.91E−03	51475407	1	1	1
658	PREDICTED: KIAA0542 gene product [*Homo sapiens*]	9.15E−03	51476003	1	1	1
659	PREDICTED: similar to RIKEN cDNA 1700019P01 [*Homo*	1.39E−04	51476104	1	1	1
660	PREDICTED: similar to bA203I16.1 (KIAA0970 protei	3.10E−03	51477225	1	1	1
661	PREDICTED: hypothetical protein XP_098980 [*Homo* s	1.51E−03	51477357	1	1	1
662	PREDICTED: similar to sperm protein associated wi	3.79E−03	51477491	1	1	1
663	PREDICTED: hypothetical protein XP_499220 [*Homo* sa	4.15E−03	51492740	1	1	1
664	PREDICTED: YLP motif containing 1 [*Homo sapiens*]	2.00E−03	51493127	1	1	1

⑦ indicates text missing or illegible when filed

[0057]

TABLE 3.2

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
1	albumin precursor; PRO0883 protein [*Homo sapiens*]	1.00E−30	4502027	95	19	11
2	transthyretin; prealbumin [*Homo sapiens*]	1.00E−30	4507725	23	19	11
3	gelsolin isoform b [*Homo sapiens*]	1.00E−30	38044288	4	14	9
4	tripeptidyl-peptidase I precursor [*Homo sapiens*]	1.00E−30	5729770	1	7	7
5	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiprotei	1.11E−16	21361198	16	19	11
6	transferrin; PRO2086 protein [*Homo sapiens*]	1.11E−15	4557871	52	19	11
7	crystallin, beta A3; eye lens structural protein [*Homo sapiens*]	2.22E−15	12056461	11	7	2
8	RBP3 gene product [*Homo sapiens*]	3.33E−15	4506453	16	14	10
9	crystallin, beta A4; eye lens structural protein; C	4.44E−15	4503059	8	3	2
10	crystallin, alpha A; crystallin, alpha-1; human alphaA-crystallin (CRYA	6.66E−15	4503055	9	6	2
11	dickkopf homolog 3; RIG-like 7-1; RIG-like 5-6; dickkopf (*Xenopus* laev	7.77E−15	40548389	3	10	9
12	enolase 3; enolase-3, beta, muscle; muscle specif	8.88E−15	16554592	1	4	4
13	leucine-rich alpha-2-glycoprotein 1; 2310031E04Rik	8.88E−15	16418467	2	3	3
14	beta-2-microglobulin precursor [*Homo sapiens*]	9.99E−15	4757826	3	14	10
15	lysozyme precursor [*Homo sapiens*]	9.99E−15	4557894	5	6	6
16	beta globin; hemoglobin beta chain [*Homo sapiens*]	9.99E−15	4504349	6	5	4
17	crystallin, gamma D; gamma crystallin 4 [*Homo* sap	1.67E−14	13377002	3	3	1
18	keratin 9 [*Homo sapiens*]	1.89E−14	4557705	2	1	1
19	ectonucleotide pyrophosphatase/phosphodiesterase 2	2.66E−14	20070230	2	5	5
20	complement component 4B proprotein [*Homo sapiens*]	3.11E−14	4502501	6	16	11
21	secreted phosphoprotein 1 (osteopontin, bone slalo	3.44E−14	4759166	5	9	9
22	beta-2-glycoprotein I precursor [*Homo sapiens*]	5.22E−14	4557327	4	10	5
23	prostaglandin D2 synthase 21 kDa; prostaglandin D synthase; prostaglan⑦	5.88E−14	32171249	3	10	8
24	hemopexin [*Homo sapiens*]	6.22E−14	11321561	9	18	10
25	serum amyloid A1 isoform 2; tumor protein p53 indu	6.88E−14	40316910	2	2	2
26	complement component 3 precursor; acylation-stimulating protein cleavag⑦	8.55E−14	4557385	10	18	10
27	RBP4 gene product [*Homo sapiens*]	9.77E−14	5803139	3	8	6
28	brain creatine kinase; creatine kinase B-chain; c	1.13E−13	21536286	3	3	3
29	vitamin D-binding protein precursor; vitamin D-binding alpha-globulin	1.49E−13	32483410	7	17	9
30	clusterin isoform 1; complement-associated protein SP-40 [*Homo sapiens*	1.53E−13	42716297	14	19	11
31	orosomucoid 2; alpha-1-acid glycoprotein, type 2 [*Homo sapiens*]	2.73E−13	4505529	5	17	10
32	orosomucoid 1 precursor; alpha-1-acid glycoprotein 1; Orosomucoid-1 (al⑦	5.08E−13	9257232	6	15	10
33	crystallin, gamma S; crystallin, gamma 8 [*Homo sapiens*]	8.39E−13	8922120	12	6	3
34	serine (or cysteine) proteinase inhibitor, clade F (alpha-2 antiplasmi	1.05E−12	39725934	13	18	11
35	afamin precursor; alpha-albumin [*Homo sapiens*]	1.10E−12	4501987	1	4	3
36	lipocalin 1 precursor; lipocalin 1 (protein migrati	1.23E−12	4504963	4	6	6
37	tubulin, beta, 5 [*Homo sapiens*]	1.26E−12	21361322	1	2	2
38	alpha 1B-glycoprotein [*Homo sapiens*]	2.60E−12	21071030	2	8	6
39	angiotensinogen precursor; angiotensin II precursor; pre-angiotensinoge	2.70E−12	4557287	4	6	6
40	ceruloplasmin (ferroxidase); Ceruloplasmin [*Homo sapiens*]	2.96E−12	4557485	8	18	11
41	apolipoprotein A-I precursor [*Homo sapiens*]	4.91E−12	4557321	10	16	10
42	alpha-2-macroglobulin precursor [*Homo sapiens*]	5.16E−12	4557225	8	10	10
43	polymeric Immunoglobulin receptor; hepatocellular	6.87E−12	31377806	4	2	2
44	alpha 2 globin; alpha globin; alpha-2 globin [*Homo sapiens*]	6.97E−12	4504345	5	3	3
45	carboxypeptidase E precursor [*Homo sapiens*]	7.12E−12	4503009	4	5	5
46	alpha-2-plasmin inhibitor; alpha-2-antiplasmin [*Homo sapiens*]	7.14E−12	11386143	1	3	3
47	phakinin; beaded filament protein CP49; bfps2, Cyto	9.69E−12	4502995	2	2	1
48	EGF-containing fibulin-like extracellular matrix protein 1 isoform b; f	1.03E−11	9665253	3	13	9

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
49	glutathione transferase; deafness, X-linked 7; fatt	1.03E−11	4504183	1	3	3
50	plasma glutathione peroxidase 3 precursor [*Homo sapiens*]	1.54E−11	6006001	2	9	7
51	crystallin, beta B1; eye lens structural protein [*Homo sapiens*]	1.56E−11	4503061	22	8	3
52	apolipoprotein E precursor; apolipoprotein E3 [*Homo sapiens*]	1.58E−11	4557325	6	13	9
53	apolipoprotein A-II precursor [*Homo sapiens*]	1.60E−11	4502149	4	11	6
54	crystallin, alpha B; heat-shock 20 kD like-protein [*Homo sapiens*]	1.82E−11	4503057	6	6	2
55	lipocalin 2 (oncogene 24p3) [*Homo sapiens*]	2.38E−11	38455402	3	1	1
55	fibrinogen, gamma chain isoform gamma-B precursor [*Homo sapiens*]	3.10E−11	11761633	6	3	2
56	apolipoprotein A-IV precursor [*Homo sapiens*]	4.20E−11	4502151	4	6	3
57	crystallin, beta B2; eye lens structural protein [*Homo sapiens*]	4.24E−11	4503063	7	8	4
58	haptoglobin [*Homo sapiens*]	7.34E−11	4826762	7	9	6
59	alpha-1-microglobulin/bikunin precursor; Alpha-1-microglobulin/bikunin	8.33E−11	4502067	3	8	8
60	lactotransferrin; lactoferrin [*Homo sapiens*]	9.25E−11	4505043	11	3	3
61	S-arrestin [*Homo sapiens*]	9.37E−11	4506781	5	3	3
62	pyruvate kinase 3 isoform 1; thyroid hormone-bind	1.07E−10	33286418	2	3	3
63	Niemann-Pick disease, type C2 precursor; epididymal	1.08E−10	5453678	1	4	4
64	cystatin C precursor; cystatin 3; gamma-trace; post	1.15E−10	4503107	6	11	9
65	chondroltin sulfate proteoglycan 2 (versican) [Hom	1.19E−10	21361116	2	2	2
66	crystallin, gamma C; crystallin, gamma-3 [*Homo sa*	1.39E−10	10518338	3	3	1
67	PREDICTED: similar to Von Ebners gland protein pr	1.42E−10	27498839	2	3	3
67	prostatic binding protein; phosphatidylethanolamine	1.66E−10	4505621	2	2	2
68	proline rich 4 (lacrimal); lacrimal proline rich pr	2.37E−10	6005802	1	1	1
69	cathepsin D preproprotein [*Homo sapiens*]	2.95E−10	4503143	2	8	7
70	RNA-binding protein regulatory subunit; oncogene	5.62E−10	31543380	1	2	1
71	tyrosine 3/tryptophan 5-monooxygenase activation	5.63E−10	21735625	1	2	2
72	glyceraldehyde-3-phosphate dehydrogenase [*Homo sapiens*]	5.99E−10	7669492	3	5	5
73	hypothetical protein BC013767 [*Homo sapiens*]	8.80E−10	39930521	1	1	1
74	ATPase, H+ transporting, lysosomal accessory prote	8.95E−10	17136148	1	2	2
75	coagulation factor II precursor; prothrombin [*Homo*	1.03E−09	4503635	1	2	2
76	amyloid beta (A4) precursor-like protein 2; amylol	1.07E−09	4502147	3	5	5
77	complement component 1 inhibitor precursor [*Homo sapiens*]	1.28E−09	4557379	4	12	10
78	filensin; cytoskeletal protein, 115 KD [*Homo* sapie	1.32E−09	4502399	3	3	1
79	prolactin-induced protein; prolactin-inducible pro	1.65E−09	4505821	2	3	3
80	GDP dissociation inhibitor 1; mental retardation,	2.24E−09	4503971	1	1	1
81	complement factor B preproprotein; C3 proactivator; C3 proaccelerator;	2.63E−09	4502397	4	12	5
82	apolipoprotein B precursor; apoB-100; apoB-48 [Hom	2.74E−09	4502153	2	1	1
83	galectin 3 binding protein; L3 antigen; Mac-2-bind	2.94E−09	5031863	1	2	2
84	alpha-1-antichymotrypsin, precursor; alpha-1-antichymotrypsin; antichym?	3.02E−09	4501843	3	10	7
85	opticin; opticin, oculoglycan; oculoglycan [*Homo sapiens*]	3.15E−09	7657419	2	7	4
86	complement component 1, r subcomponent [*Homo sapie*	3.42E−09	4502493	1	1	1
87	cystatin B; stefin B; liver thiol proteinase inhib	4.26E−09	4503117	1	1	1
88	pregnancy-zone protein; Pregnancy zone protein [*Homo sapiens*]	4.49E−09	4506355	1	3	3
89	haptoglobin-related protein; Haptoglobin-related locus [*Homo sapiens*]	5.75E−09	45580723	7	9	6
90	retinoschisis (X-linked, juvenile) 1 [*Homo sapiens*	6.93E−09	10835083	1	2	2
91	retinaldehyde binding protein 1; Newfoundland rod-c	1.07E−08	4506541	1	1	1
92	proprotein convertase subtilisin/kexin type 2; sub	1.13E−08	20336244	1	2	2
93	pancreatic ribonuclease precursor; RNase upl-1 [*Homo sapiens*]	1.24E−08	38201682	1	4	4
94	Fc fragment of IgG binding protein; IgG Fc binding	1.36E−08	4503681	8	3	3
94	inter-alpha (globulin) inhibitor H4 (plasma Kalli	1.48E−08	31542984	2	1	1
95	calsyntenin 1; non-classical cadherin XB31alpha1;	1.69E−08	41281561	1	3	3
96	alpha-2-glycoprotein 1, zinc; Alpha-2-glycoprotein,	1.77E−08	4502337	2	3	3
97	kininogen 1; alpha-2-thiol proteinase inhibitor; bradykinin [*Homo* sapie	1.79E−08	4504893	3	9	5
98	Wnt inhibitory factor-1 precursor; Wnt inhibitory factor-1 [*Homo sapien*	2.09E−08	6005950	3	4	4
99	tubulin alpha 6 [*Homo sapiens*]	4.32E−08	14389309	1	3	3
100	histidine-rich glycoprotein precursor; histidine-proline rich glycoprot	5.05E−08	4504489	2	5	4
101	amyloid beta (A4) precursor-like protein 1 [*Homo* sa	5.89E−08	4885065	1	5	5
102	vimentin [*Homo sapiens*]	6.52E−08	4507895	3	1	1
103	fibrinogen, alpha chain isoform alpha preproprotei	7.24E−08	11761629	5	2	2
104	SPARC-like 1; hevin; mast9 [*Homo sapiens*]	9.96E−08	21359871	1	4	4
105	cellular retinoic acid binding protein 1; cellular	1.25E−07	4758052	2	1	1
106	lactate dehydrogenase C [*Homo sapiens*]	1.45E−07	4504973	1	1	1
107	I factor (complement) [*Homo sapiens*]	1.88E−07	4504579	2	8	6
108	aldehyde dehydrogenase 1A1; aldehyde dehydrogenase	2.97E−07	21361176	3	2	1
109	heparan sulfate proteoglycan 2; heparan sulfate pr	3.21E−07	7427517	1	1	1
109	serine (or cysteine) proteinase inhibitor, clade C (antithrombin), memb	3.24E−07	4502261	3	8	6
110	triosephosphate isomerase 1 [*Homo sapiens*]	3.41E−07	4507645	1	1	1
111	heterogeneous nuclear ribonucleoprotein A1 isoform	3.75E−07	14043070	1	1	1
112	biotinidase precursor [*Homo sapiens*]	4.83E−07	4557373	1	2	2
113	neuronal cell adhesion molecule; Bravo [*Homo* sapie	5.84E−07	41281389	1	1	1
114	chromogranin B precursor; Chromogranin B (secretog	7.55E−07	4502807	1	1	1
115	myoglobin [*Homo sapiens*]	9.47E−07	44955885	1	2	2

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
116	semaphorin 7A; sema domain, immunoglobulin domain	1.10E−06	4504237	2	2	2
117	retbindin [*Homo sapiens*]	1.13E−06	13899247	1	3	3
118	phosphoglycerate kinase 2; phosphoglycerate kinas	1.23E−06	31543397	1	1	1
119	cystatin S precursor; cystatin 4 [*Homo sapiens*]	2.01E−06	4503109	1	2	2
120	tubulin, alpha 2 isoform 2 [*Homo sapiens*]	2.17E−06	17921991	1	2	2
121	fibrinogen, beta chain preproprotein [*Homo sapiens*	2.19E−06	11761631	2	1	1
122	H4 histone family, member E [*Homo sapiens*]	2.50E−06	11415030	1	3	3
123	complement factor H; H factor-1 (complement); fact	2.72E−06	4504375	1	1	1
124	immunoglobulin J chain [*Homo sapiens*]	2.74E−06	21489959	1	1	1
125	serum amyloid A2 [*Homo sapiens*]	2.77E−06	13540475	2	2	2
126	internexin neuronal intermediate filament protein,	3.10E−06	14249342	1	1	1
127	cellular repressor of E1A-stimulated genes [*Homo* sa	3.41E−06	4503037	1	1	1
128	insulin-like growth factor binding protein 7 [*Homo*	3.61E−06	4504619	1	2	2
129	alpha 1 type II collagen isoform 1; collagen II, a	4.47E−06	13435125	2	2	2
130	sparc/osteonectin, cwcv and kazal-like domains pro	4.61E−06	4759164	1	3	3
131	fibulin 1 isoform C precursor [*Homo sapiens*]	4.72E−06	34734062	1	1	1
132	metallothionein 1G [*Homo sapiens*]	6.02E−06	10835230	1	2	2
133	alcohol dehydrogenase 1B (class I), beta polypept	6.39E−06	34577061	1	1	1
134	heterogeneous nuclear ribonucleoprotein A2/B1 iso	6.82E−06	14043072	1	1	1
135	general transcription factor IIE, polypeptide 2, b	7.03E−06	4504195	1	1	1
136	PREDICTED: similar to Phosphoglycerate mutase 1 (	7.24E−06	41149700	1	2	2
137	phosphoglycerate kinase 1 [*Homo sapiens*]	7.80E−06	4505763	2	2	2
138	crystallin, gamma B; crystallin, gamma 1-2 [*Homo* sa	9.04E−06	4885157	1	1	1
139	chitinase 3-like 1; cartilage glycoprotein-39 [*Homo sapiens*]	9.78E−06	4557018	1	4	3
140	KIAA0052 [*Homo sapiens*]	1.24E−05	39930353	1	1	1
141	PREDICTED: similar to Triosephosphate isomerase (T	1.24E−05	41058276	1	1	1
142	alpha 1 actin precursor; alpha skeletal muscle act	1.29E−05	4501881	1	3	3
143	aldolase C, fructose-bisphosphate; Aldolase C, fruc	1.31E−05	4885063	1	1	1
144	keratin 6 irs [*Homo sapiens*]	1.43E−05	15618995	1	1	1
145	ubiquitin B precursor; polyubiquitin B [*Homo* sapie	1.49E−05	11024714	2	2	2
146	fatty acid binding protein 1, liver; Fatty acid-bin	1.51E−05	4557577	1	1	1
147	collagen, type VI, alpha 1 precursor; collagen VI	1.85E−05	15011913	1	1	1
148	heterogeneous nuclear ribonucleoprotein K isoform	2.08E−05	14165435	1	1	1
149	heat shock 90 kDa protein 1, alpha; heat shock 90 k	2.15E−05	40254816	1	1	1
150	T-cell immunomodulatory protein [*Homo sapiens*]	2.47E−05	21361933	1	1	1
151	complement component 9 [*Homo sapiens*]	2.66E−05	4502511	1	2	2
152	cathepsin B preproprotein; APP secretase; preproca	2.76E−05	22538431	1	2	2
153	limbic system-associated membrane protein [*Homo* sa	3.01E−05	45594240	1	1	1
154	glutaredoxin (thioltransferase) [*Homo sapiens*]	3.18E−05	4504025	1	1	1
155	transketolase [*Homo sapiens*]	3.22E−05	4507521	2	2	2
156	peptidoglycan recognition protein L precursor [*Homo sapiens*]	3.34E−05	21361845	1	3	3
157	PDZ domain containing 3 isoform a; PDZ domain con	3.34E−05	30061507	1	2	2
158	GRB2-associated binding protein 2 isoform a; Grb2	3.47E−05	18105042	1	1	1
159	PREDICTED: hypothetical protein XP_373740 [*Homo sapiens*]	3.65E−05	41222847	2	13	9
160	superoxide dismutase 3, extracellular [*Homo sapien*	3.79E−05	4507151	1	1	1
161	hypothetical protein FLJ32440 [*Homo sapiens*]	3.97E−05	27734761	1	3	2
162	pleiotrophin; heparin affin regulatory protein; hep	4.01E−05	4506281	1	1	1
163	A-gamma globin; hemoglobin gamma-a chain; Hemoglo	4.02E−05	28302131	2	1	1
164	dual specificity phosphatase 8; serine/threonine specific protein phosp	4.25E−05	4758212	1	2	2
165	FLJ42220 protein [*Homo sapiens*]	4.37E−05	46409506	1	2	2
166	keratin 4; Keratin-4; cytokeratin 4; keratin, typ	4.40E−05	17318574	1	2	2
167	vitronectin precursor; serum spreading factor; somatomedin B; compleme⑦	4.77E−05	18201911	1	2	2
168	chondromodulin I precursor; chondromodulin; BRICHOS	4.77E−05	5901932	1	2	2
169	keratin 1; Keratin-1; cytokeratin 1; hair alpha pr	5.28E−05	17318569	2	1	1
170	PREDICTED: similar to phosducin-like 3; phosducin-like 2; IAP-associat	5.29E−05	51492730	3	4	2
171	cadherin 2, type 1 preproprotein; cadherin 2, N-c	5.73E−05	14589889	1	1	1
172	lysosomal trafficking regulator; beige protein [Hom	5.78E−05	4502839	1	4	4
173	PREDICTED: cardiomyopathy associated 3 [*Homo sapiens*]	5.89E−05	51460893	1	4	2
174	hypothetical protein MGC10882 [*Homo sapiens*]	6.22E−05	14249240	1	1	1
175	amyloid beta A4 protein precursor, isoform b; pro	6.60E−05	41406055	1	3	3
176	PREDICTED: hypothetical protein XP_376099 [*Homo sapiens*]	6.72E−05	42656388	1	4	3
177	sodium-dependent organic anion transporter [*Homo sapiens*]	6.81E−05	37537552	1	1	1
178	tubulin, alpha 4 [*Homo sapiens*]	6.95E−05	13376539	1	1	1
179	oral-facial-digital syndrome 1; chromosome X open	7.51E−05	4503179	1	1	1
180	ribosomal protein S4, Y-linked 1 Y isoform; 40S ribosomal protein S4, Y	8.87E−05	4506727	1	1	1
181	PREDICTED: zinc finger, CCHC domain containing 11	9.18E−05	41107445	1	2	1
182	calbindin 2 full length protein isoform; calbindin	9.84E−05	4502543	1	1	1
183	hypothetical protein MGC34732 [*Homo sapiens*]	9.92E−05	40255180	1	1	1
184	dual specificity phosphatase 5; serine/threonine specific protein phos	1.12E−04	12707566	1	5	4
185	apolipoprotein C-III precursor [*Homo sapiens*]	1.13E−04	4557323	1	1	1
186	prosaposin (variant Gaucher disease and variant metachromatic leukodys⑦	1.13E−04	11386147	1	2	2

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
187	defensin, alpha 1 preproprotein; myeloid-related s	1.30E−04	4758146	1	2	2
188	complement factor D preproprotein; adipsin; prope	1.32E−04	42544239	1	1	1
189	hypothetical protein FLJ25369 [*Homo sapiens*]	1.38E−04	22749357	1	1	1
190	PREDICTED: similar to RIKEN cDNA 1700019P01 [*Homo*	1.39E−04	51476104	1	1	1
191	lumican [*Homo sapiens*]	1.40E−04	4505047	1	1	1
192	ubiquitin carboxyl-terminal esterase L1 (ubiquiti	1.47E−04	21361091	1	1	1
193	nucleoporin 214 kDa; nuclear pore complex protein	1.49E−04	33946327	1	3	3
194	importin 13; Ran binding protein 13; karyopherin 13 [*Homo sapiens*]	1.49E−04	41281425	1	1	1
195	proprotein convertase subtilisin/kexin type 5 preproprotein; protease	1.54E−04	20336246	1	1	1
196	ankyrin repeat and SOCS box-containing protein 12	1.55E−04	22208955	2	1	1
197	heterogeneous nuclear ribonucleoprotein C isoform	1.55E−04	14110428	1	1	1
198	hypothetical protein FLJ10350 [*Homo sapiens*]	1.61E−04	21361781	1	1	1
199	family with sequence similarity 29, member A [*Homo sapiens*]	1.71E−04	31377562	1	1	1
200	acyl-Coenzyme A dehydrogenase, very long chain pre	1.84E−04	4557235	2	3	3
201	PREDICTED: similar to Putative dimethylaniline mo	1.85E−04	51458831	1	1	1
202	TATA box-binding protein-associated factor 2F; TA	1.97E−04	14717407	1	1	1
203	enolase 1; MYC promoter-binding protein 1; non-neu	2.01E−04	4503571	1	1	1
204	phosphodiesterase 6A, alpha subunit [*Homo sapiens*]	2.08E−04	4585864	1	6	5
205	plasminogen [*Homo sapiens*]	2.12E−04	4505881	1	3	2
206	dual oxidase 2 precursor; dual oxidase-like domains 2; nicotinamide ad	2.36E−04	28872753	1	4	4
207	sperm associated antigen 6 isoform 2; sperm flagellar protein; axoneme	2.37E−04	27262641	2	2	1
208	spondin 1, extracellular matrix protein; spondin	2.44E−04	24307905	1	2	2
209	hypothetical protein LOC92912 [*Homo sapiens*]	2.50E−04	29789401	1	2	2
210	CD14 antigen precursor [*Homo sapiens*]	2.50E−04	4557417	1	1	1
211	PH domain-containing protein [*Homo sapiens*]	2.83E−04	33457316	1	2	2
212	tuberous sclerosis 2 isoform 2; tuberin isoform 1; tuberin isoform 2;	2.96E−04	10938008	1	1	1
213	low density lipoprotein-related protein 2; megalin	3.07E−04	6806919	1	1	1
214	hypothetical protein FLJ20574 [*Homo sapiens*]	3.10E−04	8923539	1	1	1
215	kallikrein 14 preproprotein; kallikrein-like protein 6 [*Homo sapiens*]	3.25E−04	11545747	1	2	1
216	skeletal muscle specific actinin, alpha 3 [*Homo sapiens*]	3.34E−04	4557241	1	4	3
217	F-box protein 40; muscle disease-related protein [H	3.51E−04	7706493	1	1	1
218	transient receptor potential cation channel, subfamily M, member 8 [Ho	3.58E−04	21361691	1	1	1
219	PREDICTED: KIAA0368 protein [*Homo sapiens*]	3.74E−04	51467589	1	1	1
220	alpha-2-HS-glycoprotein; Alpha-2HS-glycoprotein [*Homo sapiens*]	3.79E−04	4502005	1	3	3
221	PREDICTED: similar to KIAA0663 gene product [*Homo*	3.85E−04	41058123	1	3	3
222	guanine nucleotide-binding protein, beta-4 subuni	4.03E−04	11055998	1	1	1
223	H2A histone family, member A; histone H2AE [*Homo*	4.17E−04	10645195	1	2	2
224	potassium channel, subfamily K, member 12; tandem pore domain potassiu	4.26E−04	11545761	1	1	1
225	milk fat globule-EGF factor 8 protein; lactadherin	4.40E−04	5174557	1	1	1
226	Kruppel-like factor 12 isoform a; KLF12 zinc fing	4.42E−04	21071074	1	1	1
227	PREDICTED: similar to sin3 associated polypeptide p18 [*Homo sapiens*]	4.51E−04	51461003	1	3	3
227	sushi-repeat-containing protein, X-linked 2; sushi	4.60E−04	7657619	1	1	1
228	galactosylceramidase precursor; galactocerebrosidase; Galactosylceramin	4.63E−04	4557613	1	1	1
229	heat shock protein apg-1 [*Homo sapiens*]	4.66E−04	31541941	1	1	1
230	PAP associated domain containing 1 [*Homo sapiens*]	4.69E−04	21361704	1	1	1
231	PREDICTED: hypothetical protein FLJ25756 [*Homo sapiens*]	4.76E−04	51472397	2	4	4
232	zinc finger protein 262; cell death inhibiting RN	4.80E−04	44890068	1	1	1
233	golgi autoantigen, golgin subfamily b, macrogolgin (with transmembrane	5.05E−04	4758454	1	2	2
234	notch4 preproprotein; Notch (*Drosophila*) homolog 4 [*Homo sapiens*]	5.09E−04	27894370	1	1	1
235	protocadherin gamma subfamily B, 2 isoform 1 prec	5.25E−04	11128035	1	1	1
236	PREDICTED: similar to ribosomal protein L31 [*Homo sapiens*]	5.33E−04	51466239	1	2	2
237	insulin-like growth factor binding protein 6 [*Homo*	5.46E−04	11321593	1	2	2
238	semaphorin 3D; collapsin 2 [*Homo sapiens*]	5.79E−04	41406086	1	2	2
239	hypothetical protein MGC5601; similar to acyl-CoA dehydrogenase [*Homo*	5.87E−04	31543201	1	1	1
240	solute carrier family 37 (glycerol-3-phosphate tra	5.94E−04	14150047	1	1	1
241	plexin B3; plexin-B3; plexin 6 [*Homo sapiens*]	5.99E−04	29336063	1	3	1
242	PREDICTED: KIAA1030 protein [*Homo sapiens*]	6.08E−04	42659643	1	3	3
243	CP110 protein [*Homo sapiens*]	6.19E−04	31543018	2	3	3
244	core-binding factor, beta subunit isoform 2; SL3/	6.19E−04	13124873	1	1	1
245	PREDICTED: agrin [*Homo sapiens*]	6.20E−04	41151826	1	1	1
246	lacritin precursor [*Homo sapiens*]	6.51E−04	15187164	1	2	2
247	brain expressed, X-linked 1; uncharacterized hypo	6.54E−04	15147228	1	1	1
248	PREDICTED: similar to 60S ribosomal protein L23a [*Homo sapiens*]	6.71E−04	51474226	1	1	1
249	ubiquitin specific protease 36 [*Homo sapiens*]	6.71E−04	35250686	1	1	1
250	ubiquitin specific protease 15; deubiquitinating enzyme [*Homo sapiens*]	6.90E−04	14149627	1	3	2
251	coatomer protein complex, subunit gamma 2; coat pr	7.04E−04	6912320	1	2	2
252	PREDICTED: similar to hect domain and RLD 2 [*Homo*	7.22E−04	51472707	1	2	2
253	putatative 28 kDa protein [*Homo sapiens*]	7.35E−04	10047140	1	1	1
254	metallothionein 3 [*Homo sapiens*]	7.43E−04	5174762	1	1	1
255	PREDICTED: similar to Piccolo protein (Aczonin) [*Homo sapiens*]	7.55E−04	51492882	1	2	2
256	hypothetical protein DKFZp434H0115 [*Homo sapiens*]	7.76E−04	13899233	1	1	1

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
257	hypothetical protein DKFZp434O0527 [*Homo sapiens*]	7.81E−04	34916026	1	5	4
258	PREDICTED: KIAA1604 protein [*Homo sapiens*]	8.01E−04	20536216	1	1	1
259	enhancer of zeste 2 isoform a; enhancer of zeste	8.14E−04	21361095	1	1	1
260	hypothetical protein FLJ20580 [*Homo sapiens*]	8.20E−04	8923541	1	4	3
261	complement component 2 precursor; C3/C5 convertase [*Homo sapiens*]	8.23E−04	14550407	1	1	1
262	SH3 and multiple ankyrin repeat domains 1; somatostatin receptor-inter	8.27E−04	11968152	1	1	1
263	sparc/osteonectin, cwcv and kazal-like domains prot	8.35E−04	7662036	1	1	1
264	PREDICTED: KIAA0882 protein [*Homo sapiens*]	8.39E−04	22042713	1	1	1
265	propionyl-Coenzyme A carboxylase, alpha polypeptid	8.42E−04	4557833	1	1	1
266	PREDICTED: KIAA0179 [*Homo sapiens*]	8.94E−04	51475296	1	4	4
267	myosin IIIA; deafness, autosomal recessive 30 [*Homo sapiens*]	9.51E−04	24586657	1	1	1
268	zinc finger protein 606 [*Homo sapiens*]	9.52E−04	31377839	1	1	1
269	PREDICTED: hypothetical protein LOC146177 [*Homo* s	9.52E−04	51472829	1	2	2
270	SNF2 histone linker PHD RING helicase; 2610103K11	9.92E−04	27436873	1	2	2
271	pantothenate kinase 3; pantothenic acid kinase [*Homo sapiens*]	1.01E−03	13375789	1	3	2
272	protein tyrosine phosphatase, receptor type, K pr	1.04E−03	18860902	1	1	1
273	elongation of very long chain fatty acids like 3 [*Homo sapiens*]	1.06E−03	23097310	1	1	1
274	hypothetical protein MGC35261 [*Homo sapiens*]	1.07E−03	33859793	1	1	1
275	GTPase regulator associated with the focal adhesion kinase pp125; GTPas	1.08E−03	7662208	1	6	4
276	cleavage and polyadenylation specific factor 3, 73 kDa; cleavage and pol	1.10E−03	7706427	1	3	2
277	PREDICTED: KIAA0543 protein [*Homo sapiens*]	1.13E−03	51466599	1	1	1
278	serine (or cysteine) proteinase inhibitor, clade I	1.14E−03	4826904	1	1	1
279	Tax1 (human T-cell leukemia virus type I) binding protein 1; tax1-bind	1.14E−03	21361682	1	2	2
280	PREDICTED: similar to KIAA0877 protein [*Homo* sapie	1.15E−03	51466121	1	1	1
280	hypothetical protein FLJ12998 [*Homo sapiens*]	1.16E−03	12232437	1	1	1
281	PREDICTED: intracellular membrane-associated calc	1.19E−03	37538661	1	1	1
282	PREDICTED: KIAA0367 protein [*Homo sapiens*]	1.19E−03	51467193	1	3	3
283	PREDICTED: similar to Heat shock cognate 71 kDa pr	1.20E−03	51466978	1	1	1
284	LIM domain only 7; LOMP protein; zinc-finger doma	1.21E−03	33598968	1	1	1
285	centromere protein C 1; Centromere autoantigen C1 [*Homo sapiens*]	1.23E−03	4502779	1	2	2
286	cytoplasmic FMR1 interacting protein 1; selective hybridizing clone (m	1.25E−03	24307969	1	1	1
287	synuclein, gamma (breast cancer-specific protein 1)	1.25E−03	4507113	1	1	1
288	aldo-keto reductase family 1, member C3; hydroxys	1.28E−03	24497583	1	1	1
289	formin-like 3 isoform 1; WW domain binding protei	1.28E−03	40217839	1	1	1
290	hypothetical protein FLJ31322 [*Homo sapiens*]	1.29E−03	45387953	1	2	1
291	dynein, axonemal, intermediate polypeptide 2; dyn	1.31E−03	12718866	1	2	2
292	brain glycogen phosphorylase; glycogen phosphoryl	1.32E−03	21361370	1	1	1
293	solute carrier family 4, sodium bicarbonate cotra	1.33E−03	19923176	1	1	1
294	FLJ46156 protein [*Homo sapiens*]	1.33E−03	38348312	1	1	1
295	corticosteroid binding globulin precursor; corticosteroid binding globu	1.35E−03	4502595	1	1	1
296	PREDICTED: similar to anaphase promoting complex	1.36E−03	51460657	1	1	1
297	PREDICTED: hypothetical protein XP_498867 [*Homo sapiens*]	1.37E−03	51475312	1	2	2
298	PREDICTED: similar to tudor domain containing 6 protein [*Homo sapiens*]	1.40E−03	42657656	1	1	1
299	PREDICTED: hypothetical cardiac/skeletal muscle-e	1.41E−03	51458828	1	1	1
300	zinc finger protein 560 [*Homo sapiens*]	1.43E−03	22749003	1	3	2
301	bromodomain adjacent to zinc finger domain, 1A isoform a; ATP-dependen	1.48E−03	32967603	1	1	1
302	hypothetical protein MGC27016 [*Homo sapiens*]	1.48E−03	21450675	1	2	1
303	ribosomal protein L10-like protein [*Homo sapiens*]	1.50E−03	18152783	1	4	2
304	RAN binding protein 2; nucleoporin 358; nuclear po	1.51E−03	6382079	1	1	1
305	PREDICTED: hypothetical protein XP_098980 [*Homo* s	1.51E−03	51477357	1	1	1
306	supervillin isoform 2; membrane-associated F-actin binding protein p20	1.51E−03	11496982	1	12	9
307	H63 breast cancer expressed gene isoform a; gene associated with HER-2	1.59E−03	29826289	1	1	1
308	alpha 1 type XV collagen precursor; collagen XV,	1.61E−03	18641350	1	1	1
309	beta-1,3-N-acetylglucosaminyltransferase bGnT-6; i	1.65E−03	5802984	1	1	1
310	RAN binding protein 3 isoform RANBP3-a; RAN-bindin	1.69E−03	4506409	1	1	1
311	zinc finger protein 335; zinc-finger/leucine-zipp	1.73E−03	11560152	1	1	1
312	PREDICTED: hypothetical protein XP_370924 [*Homo* s	1.74E−03	51473154	1	1	1
313	mitogen-activated protein kinase associated prote	1.75E−03	13129138	1	2	2
314	PREDICTED: hypothetical protein LOC284371 [*Homo* s	1.79E−03	51474776	1	1	1
315	stromal cell-derived factor 2 precursor [*Homo* sapi	1.79E−03	14141195	1	1	1
316	frizzled-related protein; Fritz; Frzb-1; fre; friz	1.81E−03	38455388	1	2	2
317	desmoplakin; desmoplakin (DPI, DPII) [*Homo sapiens*	1.81E−03	4758200	1	1	1
318	TU12B1-TY protein [*Homo sapiens*]	1.82E−03	7706749	1	1	1
319	biliverdin reductase A [*Homo sapiens*]	1.86E−03	33589854	1	1	1
320	PREDICTED: similar to Ig kappa variable region [Ho	1.87E−03	51460659	1	1	1
320	SH3-domain binding protein 2; Cherubism [*Homo* sap	1.87E−03	19923155	1	2	2
321	U5 snRNP-specific protein, 116 kD [*Homo sapiens*]	1.88E−03	41152056	1	1	1
322	PREDICTED: similar to Ig kappa chain [*Homo sapien*	1.91E−03	51475407	1	1	1
323	formyltetrahydrofolate dehydrogenase isoform a [H	1.91E−03	21614513	1	1	1
324	rotatin [*Homo sapiens*]	1.91E−03	38201696	1	1	1
325	hypothetical protein FLJ38973 [*Homo sapiens*]	1.93E−03	31581541	1	2	2

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
326	PREDICTED: KIAA0753 gene product [*Homo sapiens*]	1.96E−03	42661078	1	1	1
327	hypothetical protein DKFZp434H2215 [*Homo sapiens*]	1.96E−03	8922138	1	1	1
328	KIAA0317 [*Homo sapiens*]	1.98E−03	42734315	1	3	2
329	PREDICTED: YLP motif containing 1 [*Homo sapiens*]	2.00E−03	51493127	1	1	1
330	ankyrin repeat and SOCS box-containing 6 isoform 1 [*Homo sapiens*]	2.02E−03	8923516	1	1	1
331	PREDICTED: KIAA1414 protein [*Homo sapiens*]	2.04E−03	51460558	1	4	3
332	T-box 21; T-box expressed in T cells; T-cell-specific T-box transcripti	2.05E−03	7019549	1	1	1
333	PREDICTED: similar to RIKEN cDNA 1700013E18 [*Homo*	2.07E−03	51458576	1	1	1
334	similar to hypothetical protein FLJ10883 [*Homo* sa	2.09E−03	24308386	1	1	1
335	dihydropyrimidinase-like 2; collapsin response medi	2.11E−03	4503377	1	1	1
336	KIAA0433 protein [*Homo sapiens*]	2.12E−03	41281583	1	1	1
337	transcription factor-like protein 4 isoform gamma; MAX-like bHLHZIP pr	2.12E−03	24586667	1	8	5
337	keratin, hair, basic, 4; hard keratin, type II, 4	2.14E−03	15431316	1	1	1
338	fibronectin 1 isoform 3 preproprotein; cold-insol	2.17E−03	16933542	1	1	1
339	homeobox protein A5; homeobox protein HOXA5; home	2.18E−03	24497517	1	1	1
340	bromodomain containing protein 3; open reading fr	2.19E−03	11067749	1	1	1
341	homeobox protein A10 isoform b; homeobox protein H	2.19E−03	24497551	1	1	1
342	PREDICTED: GCN1 general control of amino-acid synthesis 1-like 1 [*Homo*	2.23E−03	51471344	1	1	1
343	calsyntenin 3; alcadein [*Homo sapiens*]	2.23E−03	42475534	1	1	1
344	serine/threonine kinase 36 (fused homolog, *Drosophila*); serine/threoni	2.26E−03	24308123	1	1	1
345	interphotoreceptor matrix proteoglycan 2; interpho	2.29E−03	7706717	1	1	1
345	zinc finger, MYND domain containing 11 isoform b; adenovirus 5 E1A bin	2.30E−03	47078243	1	2	2
346	Rho GTPase activating protein 24 [*Homo sapiens*]	2.35E−03	13775230	1	1	1
347	Bardet-Biedl syndrome 1 [*Homo sapiens*]	2.36E−03	28395045	1	1	1
348	serine (or cysteine) proteinase inhibitor, clade	2.37E−03	13489087	1	1	1
349	similar to RIKEN cDNA 1110018M03 [*Homo sapiens*]	2.37E−03	42766422	1	2	2
350	HECT domain containing 1 [*Homo sapiens*]	2.40E−03	32698702	1	1	1
351	steroid dehydrogenase-like [*Homo sapiens*]	2.41E−03	24432037	1	1	1
352	potassium voltage-gated channel, shaker-related subfamily, member 1 [Ho	2.42E−03	4557685	1	1	1
353	junctophilin 1; mitsugumin72; junctophilin type1 [*Homo sapiens*]	2.43E−03	21735575	1	3	2
354	kelch-like 8 [*Homo sapiens*]	2.43E−03	34101268	1	1	1
355	PREDICTED: similar to transcription elongation fa	2.45E−03	51467523	1	3	3
356	crumbs homolog 1 isoform II precursor; crumbs (Dr	2.45E−03	41327708	1	1	1
357	galectin 8 isoform a; Po66 carbohydrate binding p	2.45E−03	42544185	1	1	1
357	arginyl-tRNA synthetase [*Homo sapiens*]	2.46E−03	15149476	1	4	4
358	SET and MYND domain containing 1; CD8 beta opposi	2.46E−03	38093643	1	1	1
359	PREDICTED: similar to 40S ribosomal protein S7 (S8) [*Homo sapiens*]	2.47E−03	51459063	1	1	1
360	MAS-related GPR, member D; mas-related G protein-coupled MRGD [*Homo* sa⑦	2.48E−03	42794265	1	1	1
361	hypothetical protein FLJ35725 [*Homo sapiens*]	2.51E−03	22749135	1	1	1
362	hypothetical protein FLJ21918 [*Homo sapiens*]	2.54E−03	45935393	1	1	1
363	structural maintenance of chromosomes 2-like 1; structural maintenance	2.58E−03	5453591	1	1	1
364	PREDICTED: hypothetical protein LOC285335 [*Homo sapiens*]	2.58E−03	41146536	1	1	1
365	PREDICTED: similar to elongation factor 1 delta [	2.64E−03	51459015	1	1	1
366	leucine zipper, putative tumor suppressor 1; F37/E	2.64E−03	10440566	1	3	2
367	PREDICTED: similar to FLJ14624 protein [*Homo* sapi	2.65E−03	51464636	1	1	1
368	cell adhesion molecule with homology to L1CAM pre	2.66E−03	27894376	1	1	1
369	NFAT activation molecule 1 precursor; calcinerin/	2.68E−03	22095335	1	1	1
370	B-cell lymphoma protein 2 beta isoform [*Homo* sapie	2.71E−03	4557357	1	1	1
371	cytosolic ovarian carcinoma antigen 1 isoform b; APK1 antigen [*Homo sa*⑦	2.72E−03	32528291	1	2	2
372	hypothetical protein LOC255189 [*Homo sapiens*]	2.73E−03	47106065	1	2	1
373	postreplication repair protein hRAD18p; RAD18, *S. cerevisiae*, homolog	2.76E−03	14550405	1	1	1
374	PREDICTED: hypothetical protein XP_499235 [*Homo* s	2.79E−03	51466834	1	1	1
375	DEAH (Asp-Glu-Ala-His) box polypeptide 29; nuclei	2.79E−03	26553432	1	3	3
376	sodium channel, voltage-gated, type II, alpha 2; s	2.80E−03	10337597	1	1	1
377	nucleoporin 210; nuclear pore membrane glycoprotein 210 [*Homo sapiens*]	2.84E−03	27477134	1	3	3
378	four and a half LIM domains 1; Four-and-a-half LI	2.85E−03	21361122	1	1	1
379	toll-like receptor 8 isoform 1 [*Homo sapiens*]	2.90E−03	20302166	1	1	1
380	golgi autoantigen, golgin subfamily a, 4; golgin-2	2.90E−03	6715600	1	1	1
381	inter-alpha (globulin) inhibitor H2; inter-alpha (	2.91E−03	4504783	1	1	1
382	hypothetical protein FLJ12178 [*Homo sapiens*]	2.93E−03	38202219	1	1	1
383	a disintegrin and metalloproteinase with thrombos	2.96E−03	33624885	1	1	1
384	PREDICTED: hypothetical protein XP_497598 [*Homo* s	2.97E−03	51474534	1	2	2
385	lactate dehydrogenase A [*Homo sapiens*]	2.98E−03	5031857	1	1	1
386	glutathione S-transferase M1 isoform 1; HB subuni	2.98E−03	23065544	1	1	1
387	phospholipase C gamma 1 isoform b; phospholipase	3.00E−03	33598946	1	1	1
388	PREDICTED: similar to bA203I16.1 (KIAA0970 protei	3.10E−03	51477225	1	1	1
389	acetyl-Coenzyme A acyltransferase 1; peroxisomal 3	3.11E−03	4501853	1	1	1
390	Insulin receptor substrate 1 [*Homo sapiens*]	3.11E−03	5031805	1	3	1
391	PREDICTED: similar to Tetratricopeptide repeat pr	3.15E−03	29735853	1	1	1
392	ankyrin repeat domain 30A; breast cancer antigen NY-BR-1 [*Homo sapiens*	3.16E−03	16506285	1	2	2

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
393	DEAH (Asp-Glu-Ala-His) box polypeptide 30 isoform	3.17E−03	20336290	1	1	1
394	SATB family member 2; two cut domains-containing	3.24E−03	38016202	1	1	1
395	hepatoma-derived growth factor, related protein 3; hepatoma-derived gro	3.24E−03	7705320	1	1	1
396	enolase 2; neurone-specific enolase; neuron specifi	3.25E−03	5803011	1	1	1
397	Ral GEF with PH domain and SH3 binding motif 2; Ral-A exchange factor	3.25E−03	32441283	1	1	1
398	PREDICTED: hypothetical protein XP_370638 [*Homo* s	3.28E−03	41149556	1	1	1
399	mitogen-activated protein kinase-activated protei	3.28E−03	10863901	1	1	1
400	cholinergic receptor, nicotinic, alpha polypeptide 2 (neuronal) [*Homo* s	3.30E−03	4502823	1	1	1
401	growth factor receptor-bound protein 14 [*Homo sapiens*]	3.32E−03	4758478	1	2	2
402	PREDICTED: hypothetical protein XP_295058 [*Homo s*	3.34E−03	51460438	1	1	1
403	aldehyde dehydrogenase 3 family, member A1; aldehy	3.34E−03	22907049	1	1	1
404	eukaryotic translation initiation factor 2C, 3 isoform a; argonaute 3	3.35E−03	29294647	1	2	2
405	DnaJ (Hsp40) homolog, subfamily C, member 1 [*Homo sapiens*]	3.37E−03	21361912	1	1	1
406	ATPase, Class II, type 9B; ATPase type IV, phosph	3.40E−03	41327760	1	1	1
407	hypothetical protein FLJ12875 [*Homo sapiens*]	3.42E−03	13375705	1	1	1
408	PREDICTED: potassium channel, subfamily T, member	3.46E−03	51467170	1	1	1
409	PREDICTED: hypothetical protein XP_498937 [*Homo sapiens*]	3.47E−03	51463864	1	1	1
410	vacuolar protein sorting 13C protein [*Homo sapiens*]	3.48E−03	42544121	1	1	1
411	GREB1 protein isoform a; gene regulated by estrog	3.50E−03	23397642	1	1	1
412	DC12 protein [*Homo sapiens*]	3.52E−03	9910182	1	1	1
413	follistatin-like 1 precursor; follistatin-related p	3.56E−03	5901956	1	1	1
414	chloride channel 6 isoform CIC-6a [*Homo sapiens*]	3.56E−03	4502873	1	1	1
415	PREDICTED: hypothetical protein XP_375631 [*Homo* sa	3.57E−03	42661664	1	2	2
416	KIAA1404 protein [*Homo sapiens*]	3.58E−03	28626521	1	1	1
417	fragile X mental retardation-related protein 1; Fragile X mental retard	3.60E−03	4826736	1	1	1
418	BPY2 interacting protein 1; chromosome 19 open re	3.61E−03	21361668	1	1	1
419	vacuolar protein sorting 18 [*Homo sapiens*]	3.62E−03	17978485	1	2	2
420	phosphatidylinositol-4-phosphate 5-kinase, type I, gamma; phosphatidyl	3.65E−03	31317309	1	2	2
421	latent transforming growth factor beta binding pr	3.69E−03	46249412	1	1	1
422	transformation/transcription domain-associated pro	3.71E−03	4507691	1	1	1
423	neogenin homolog 1; neogenin (chicken) homolog 1 [*Homo sapiens*]	3.72E−03	4505375	1	2	2
424	Y chromosome chromodomain protein 1 isoform a; te	3.74E−03	25453481	1	1	1
425	PREDICTED: ProSAPiP2 protein [*Homo sapiens*]	3.74E−03	42661180	1	1	1
426	DC13 protein [*Homo sapiens*]	3.77E−03	9910184	1	1	1
427	PREDICTED: similar to sperm protein associated wi	3.79E−03	51477491	1	1	1
428	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminylt	3.79E−03	21686971	1	1	1
429	Jumonji, AT rich interactive domain 1B (RBP2-like	3.81E−03	19923370	2	1	1
430	nitric oxide synthase 1 (neuronal) [*Homo sapiens*]	3.81E−03	10835173	1	1	1
431	golgi phosphoprotein 4; type II Golgi membrane prot	3.82E−03	7657138	1	1	1
432	solute carrier family 39 (zinc transporter), member 6; LIV-1 protein,	3.83E−03	12751475	1	1	1
433	PREDICTED: similar to ENSANGP00000013733 [*Homo* sa	3.85E−03	51473057	1	1	1
434	vacuolar protein sorting 13A isoform B; chorein;	3.86E−03	15619008	1	1	1
435	hypothetical protein FLJ20626 [*Homo sapiens*]	3.88E−03	8923582	1	1	1
436	PREDICTED: similar to bA110H4.2 (similar to membr	3.97E−03	51464932	1	1	1
437	PREDICTED: huntingtin interacting protein-1-relat	3.98E−03	29744338	1	1	1
438	PREDICTED: similar to KIAA0445 protein [*Homo* sapi	4.00E−03	51461034	1	1	1
439	calcium/calmodulin-dependent protein kinase IV; br	4.02E−03	4502557	1	1	1
440	inter-alpha (globulin) inhibitor H5-like; ITI-lik	4.05E−03	38348336	1	1	1
441	PREDICTED: similar to serologically defined colon	4.05E−03	41150943	1	1	1
442	phosphoinositide-specific phospholipase C beta 1	4.07E−03	12083581	1	1	1
443	vacuolar protein sorting 35; maternal-embryonic 3; vacuolar protein so	4.10E−03	17999541	1	1	1
444	M-phase phosphoprotein 1; mitotic kinesin-like protein [*Homo sapiens*]	4.11E−03	46049114	1	1	1
445	lipoyltransferase 1 [*Homo sapiens*]	4.13E−03	21729878	1	1	1
446	sister-of-mammalian grainyhead protein isoform 1;	4.14E−03	38049007	1	1	1
447	cadherin 15 preproprotein; M-cadherin; muscle-cadherin; myotubule-cadhe	4.15E−03	4826669	1	1	1
448	LOC161577 protein [*Homo sapiens*]	4.15E−03	38348356	1	1	1
449	PREDICTED: hypothetical protein XP_499220 [*Homo* sa	4.15E−03	51492740	1	1	1
450	WW domain binding protein 11; Npw38-binding protei	4.17E−03	7706501	1	2	2
451	numb homolog; numb (*Drosophila*) homolog [*Homo* sapi	4.19E−03	20070356	1	1	1
452	chromosome 10 open reading frame 87; Em:AC061711.1 [*Homo sapiens*]	4.19E−03	21389373	1	1	1
453	PREDICTED: similar to Calpain 9 (Digestive tract-	4.22E−03	51460556	1	1	1
454	acetyl-Coenzyme A carboxylase beta [*Homo sapiens*]	4.23E−03	4501855	1	1	1
455	Rho family guanine-nucleotide exchange factor [Ho	4.32E−03	31742505	1	2	2
456	hypothetical protein DKFZp547B1713 [*Homo sapiens*]	4.35E−03	22748815	1	1	1
457	secretory leukocyte protease inhibitor precursor; W	4.40E−03	4507065	1	1	1
458	hypothetical protein FLJ21477 [*Homo sapiens*]	4.46E−03	13376749	1	1	1
459	E1A binding protein p400; CAGH32 protein; trinucleotide repeat contain	4.47E−03	15805014	1	1	1
460	neuroligin 2 [*Homo sapiens*]	4.50E−03	30840978	1	1	1
461	hypothetical protein MGC20781 [*Homo sapiens*]	4.52E−03	34147472	1	1	1
462	FLJ25005 protein [*Homo sapiens*]	4.55E−03	38570111	1	4	4
463	testis expressed sequence 13A [*Homo sapiens*]	4.60E−03	13775180	1	1	1

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
464	RAC/CDC42 exchange factor isoform 2 [*Homo sapiens*]	4.60E−03	19311008	1	1	1
465	nudix (nucleoside diphosphate linked moiety X)-type motif 11 [*Homo* sap	4.64E−03	37221177	1	1	1
466	heat shock 70 kDa protein 8 isoform 2; heat shock c	4.64E−03	24234686	1	1	1
467	PREDICTED: similar to contains transmembrane (TM)	4.67E−03	51474648	1	1	1
467	delta globin [*Homo sapiens*]	4.67E−03	4504351	1	1	1
468	DNA methyltransferase 1-associated protein 1 [Hom	4.68E−03	13123776	1	1	1
469	coagulation factor XII precursor; Hageman factor [*Homo sapiens*]	4.68E−03	4503629	1	1	1
470	PREDICTED: twist homolog 2 [*Homo sapiens*]	4.71E−03	51463853	1	1	1
471	PREDICTED: similar to RIKEN cDNA G431001E03 gene [*Homo sapiens*]	4.73E−03	51464570	1	1	1
472	cytosolic phosphoenolpyruvate carboxykinase 1; phosphoenolpyruvate car	4.79E−03	32483401	1	1	1
473	ubinuclein 1 [*Homo sapiens*]	4.83E−03	9055374	1	1	1
474	macrophage erythroblast attacher; erythroblast macrophage protein [*Homo*	4.84E−03	5031685	1	2	1
475	SH2 domain binding protein 1; TPR-containing, SH2-	4.93E−03	7661950	1	1	1
476	interleukin 10 receptor, alpha precursor [*Homo sapiens*]	4.94E−03	4504633	1	1	1
477	PREDICTED: similar to RIKEN cDNA 2210009G21 [*Homo sapiens*]	4.97E−03	37556081	1	1	1
478	protease, serine, 22; protease, serine S1 family member 22; tryptase e	5.01E−03	11545839	1	1	1
479	cutaneous T-cell lymphoma tumor antigen se70-2 [*H*	5.02E−03	31652264	1	1	1
480	dihydrofolate reductase [*Homo sapiens*]	5.05E−03	4503323	1	1	1
481	alkylglycerone phosphate synthase precursor [*Homo sapiens*]	5.09E−03	4501993	1	1	1
482	PREDICTED: similar to Golgi autoantigen, golgin subfamily A member 6 (	5.11E−03	51472431	1	1	1
483	palmitoylated membrane protein 7 [*Homo sapiens*]	5.12E−03	27735101	1	2	2
484	hypothetical protein BC008207 [*Homo sapiens*]	5.13E−03	19923911	1	1	1
485	PREDICTED: similar to submaxillary apomucin [*Homo*	5.14E−03	51471105	1	2	2
486	translocase of inner mitochondrial membrane 23 (yeast) homolog; translo	5.15E−03	5454122	1	1	1
487	toll-like receptor 9 isoform A precursor [*Homo* sap	5.19E−03	8394456	1	1	1
488	succinate receptor 1; G protein-coupled receptor	5.22E−03	47271392	1	1	1
489	PREDICTED: similar to pMesogenin1 [*Homo sapiens*]	5.26E−03	37539465	1	1	1
490	chimerin (chimaerin) 2; Chimerin 2 (GTPase-activating protein, rho, 3);	5.26E−03	4757980	1	1	1
491	SRY (sex determining region Y)-box 4; SRY-related HMG-box gene 4; ecotr	5.28E−03	4507163	1	1	1
492	PREDICTED: T-box 18 [*Homo sapiens*]	5.28E−03	51465420	1	1	1
492	PREDICTED: hypothetical protein XP_498801 [*Homo sa*	5.30E−03	51459364	1	1	1
493	PREDICTED: follistatin-like 4 [*Homo sapiens*]	5.31E−03	22049346	1	1	1
494	apolipoprotein D precursor [*Homo sapiens*]	5.32E−03	4502163	1	1	1
495	hypothetical protein FLJ40125 [*Homo sapiens*]	5.33E−03	30425418	1	1	1
496	nebulin [*Homo sapiens*]	5.35E−03	4758794	1	2	2
497	testis-specific protein TSP-NY isoform a [*Homo sapiens*]	5.38E−03	30348972	1	2	2
498	MDN1, midasin homolog [*Homo sapiens*]	5.39E−03	24415404	1	1	1
499	hypothetical protein LOC200186 [*Homo sapiens*]	5.40E−03	32171215	1	1	1
500	general transcription factor IIH, polypeptide 1 (62 kD subunit) [*Homo* sa	5.41E−03	4885365	1	2	1
501	T-cell activation kelch repeat protein [*Homo sapiens*]	5.41E−03	21245132	1	1	1
502	KIAA0625 protein [*Homo sapiens*]	5.44E−03	37620159	1	1	1
503	PREDICTED: similar to tigger transposable element	5.47E−03	51467790	1	1	1
504	leucine-zipper-like transcriptional regulator, 1;	5.48E−03	47717139	1	1	1
505	tumor necrosis factor, alpha-induced protein 1 [*Homo sapiens*]	5.50E−03	10863937	1	1	1
506	hypothetical protein FLJ14768 [*Homo sapiens*]	5.53E−03	14249548	1	1	1
507	myosin light chain 2 [*Homo sapiens*]	5.53E−03	4557775	1	1	1
508	retinitis pigmentosa 1-like 1 [*Homo sapiens*]	5.54E−03	40255278	1	1	1
509	mitochondrial ribosomal protein L32 [*Homo sapiens*	5.55E−03	13994261	1	1	1
510	transaldolase 1; glycerone transferase; dihydroxya	5.62E−03	5803187	1	1	1
511	PREDICTED: similar to membrane-spanning proteogly	5.64E−03	51464985	1	1	1
512	coiled-coil domain containing 8 [*Homo sapiens*]	5.64E−03	14042972	1	1	1
513	TR4 orphan receptor associated protein TRA16; rep	5.65E−03	28882043	1	1	1
514	SLAM family member 7; CD2-like receptor activating cytotoxic cells; 19	5.67E−03	19923572	1	1	1
515	testis nuclear RNA-binding protein [*Homo sapiens*]	5.72E−03	21245124	1	1	1
516	succinate-CoA ligase, ADP-forming, beta subunit; SCS-betaA for ATP spe	5.79E−03	11321583	1	3	1
517	transmembrane channel-like 7 [*Homo sapiens*]	5.84E−03	33636691	1	1	1
518	PREDICTED: similar to bA395L14.5 (novel phosphogl	5.85E−03	51460421	1	1	1
519	RIC3 protein [*Homo sapiens*]	5.90E−03	21362040	1	2	2
520	zinc finger protein 545 [*Homo sapiens*]	5.96E−03	28274686	1	1	1
521	hypothetical protein FLJ13868 [*Homo sapiens*]	5.97E−03	12232403	1	1	1
522	PREDICTED: similar to Olfactory receptor 52L1 [*Homo sapiens*]	5.99E−03	51470915	1	2	1
523	cadherin 11, type 2 isoform 1 preproprotein; oste	6.03E−03	16306532	1	1	1
524	talin 1 [*Homo sapiens*]	6.05E−03	16753233	1	1	1
525	zinc finger protein 625 [*Homo sapiens*]	6.05E−03	21687161	1	2	1
526	general transcription factor IIIC, polypeptide 3,	6.08E−03	6912398	1	1	1
527	cystathionine-beta-synthase; serine sulfhydrase; be	6.11E−03	4557415	1	1	1
528	nuclear receptor subfamily 4, group A, member 3 is	6.11E−03	27894355	1	1	1
529	vitelliform macular dystrophy 2-like 2; bestrophin 4 [*Homo sapiens*]	6.11E−03	23397576	1	1	1
530	hypothetical protein LOC168850 [*Homo sapiens*]	6.17E−03	39753953	1	1	1
531	mutS homolog 5 isoform a; mutS (*E. coli*) homolog 5 [*Homo sapiens*]	6.18E−03	26638662	1	4	4
532	USH3A protein isoform c; clarin-1 [*Homo sapiens*]	6.20E−03	16506281	1	1	1

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
533	ATP-binding cassette, sub-family F, member 1; ATP-binding cassette 50;	6.21E−03	10947135	1	1	1
534	unc-13 homolog D [*Homo sapiens*]	6.22E−03	46195765	1	1	1
535	nuclear receptor coactivator 7; estrogen receptor associated protein 1	6.25E−03	42476175	1	1	1
536	MYB binding protein 1a; p53-activated protein-2 [*Homo sapiens*]	6.25E−03	7657351	1	1	1
537	elongation factor RNA polymerase II; ELL gene (11-	6.28E−03	5729812	1	2	2
538	hypothetical protein MGC10854 [*Homo sapiens*]	6.29E−03	14150056	1	1	1
539	PREDICTED: neuregulin 3 [*Homo sapiens*]	6.31E−03	51467770	1	1	1
540	DEAD (Asp-Glu-Ala-Asp) box polypeptide 18; Myc-re	6.32E−03	38327634	1	1	1
541	PREDICTED: similar to centaurin, gamma-like family, member 1; ARF GTPa	6.34E−03	51468155	1	1	1
542	KIAA1033 protein [*Homo sapiens*]	6.37E−03	40018629	1	1	1
543	PREDICTED: TBP-interacting protein [*Homo sapiens*]	6.46E−03	41144277	1	1	1
543	PREDICTED: FLJ46675 protein [*Homo sapiens*]	6.48E−03	51474152	1	1	1
544	PREDICTED: similar to bA526D8.2 (novel protein si	6.51E−03	51467642	1	1	1
544	Rho-specific guanine nucleotide exchange factor p	6.68E−03	41327769	1	1	1
545	polypeptide N-acetylgalactosaminyltransferase 6; Ga	6.69E−03	6005766	1	1	1
546	interleukin 13 receptor, alpha 1 precursor; IL13 receptor alpha-1 chain	6.69E−03	4504647	1	1	1
547	PREDICTED: SHC (Src homology 2 domain containing)	6.77E−03	51474945	1	1	1
548	PREDICTED: KIAA1205 [*Homo sapiens*]	6.79E−03	51474761	1	1	1
549	UNC13 (*C. elegans*)-like; homolog of rat Munc13 (d	6.80E−03	38176154	1	1	1
550	AT-hook transcription factor; AT-hook transcripti	6.81E−03	37620171	1	1	1
551	TBP-associated factor 9L; neuronal cell death-rel	6.83E−03	20070280	1	1	1
552	thrombospondin 2 precursor [*Homo sapiens*]	6.85E−03	40317628	1	1	1
553	hypothetical protein BC011981 [*Homo sapiens*]	6.90E−03	19923935	1	1	1
554	breast cancer 2, early onset; Fanconi anemia, comp	6.95E−03	4502451	1	1	1
555	acyl-Coenzyme A oxidase 3, pristanoyl [*Homo sapiens*	6.97E−03	4501871	1	1	1
556	A-kinase anchor protein 9 isoform 2; A-kinase anc	7.07E−03	22538387	1	1	1
557	PREDICTED: similar to elongation factor Tu GTP bin	7.13E−03	51472670	1	1	1
558	TUDOR gene similar [*Homo sapiens*]	7.14E−03	32996737	1	1	1
559	mitogen-activated protein kinase 10 isoform 3; MAP kinase; JNK3 alpha	7.21E−03	20986506	1	1	1
560	bifunctional phosphopantetheine adenylyl transferase/dephospho CoA kin	7.22E−03	46048207	1	1	1
561	PREDICTED: similar to Fc receptor homolog expressed in B cells; Fc rec	7.24E−03	51458812	1	1	1
562	FLJ46072 protein [*Homo sapiens*]	7.24E−03	38348290	1	1	1
563	PREDICTED: hypothetical protein DKFZp762K222 [*Homo sapiens*]	7.47E−03	51464327	1	1	1
564	PREDICTED: similar to eukaryotic translation elo	7.50E−03	51474994	1	1	1
565	hypothetical protein FLJ10706 [*Homo sapiens*]	7.51E−03	40254931	1	1	1
566	hypothetical protein MGC4308 [*Homo sapiens*]	7.51E−03	14150167	1	2	2
567	KIAA1632 protein [*Homo sapiens*]	7.53E−03	46195733	1	1	1
567	PREDICTED: PTPRF interacting protein, binding pro	7.54E−03	20561108	1	1	1
568	PREDICTED: similar to osteotesticular protein tyr	7.58E−03	51458868	1	1	1
569	hypothetical protein CG003 [*Homo sapiens*]	7.59E−03	12957488	1	1	1
570	cell cycle progression 1; cell cycle progression	7.64E−03	28395035	1	1	1
571	mbt domain containing 1 [*Homo sapiens*]	7.70E−03	8923059	1	1	1
572	proline arginine-rich end leucine-rich repeat prot	7.89E−03	41349454	1	1	1
573	protein tyrosine phosphatase, non-receptor type 3	7.93E−03	18104986	1	1	1
574	PREDICTED: similar to KIAA2033 protein [*Homo* sapi	7.94E−03	51464267	1	1	1
575	hypothetical protein FLJ21019 [*Homo sapiens*]	7.94E−03	40255047	1	1	1
576	PREDICTED: myosin VI [*Homo sapiens*]	7.97E−03	42657517	1	1	1
577	PREDICTED: similar to Ig heavy chain V-I region HG3 precursor [*Homo sa*	7.98E−03	51472657	1	1	1
578	FLJ45248 protein [*Homo sapiens*]	7.98E−03	46409638	1	1	1
579	gelsolin isoform a [*Homo sapiens*]	7.98E−03	4504165	1	1	1
580	oxysterol-binding protein-like 1A isoform B; oxys	8.02E−03	19718741	1	1	1
581	rearranged L-myc fusion sequence; Zn-15 related [*Homo sapiens*]	8.08E−03	6912632	1	1	1
582	cardiomyopathy associated 5; 2310076E16Rik [*Homo sapiens*]	8.25E−03	32698780	1	1	1
583	ADP-ribosylation factor guanine nucleotide-exchange factor 2; brefeldin	8.25E−03	5453573	1	1	1
584	sidekick 2; *Drosophila* sidekick-like; chicken sid	8.27E−03	21735577	1	1	1
585	similar to golgi autoantigen, golgin subfamily a,	8.29E−03	38044110	1	1	1
586	CTP: phosphocholine cytidylyltransferase b [*Homo s*	8.34E−03	21361202	1	1	1
587	zinc finger protein 295 [*Homo sapiens*]	8.35E−03	40254945	1	1	1
588	adenylate kinase 3 alpha like; adenylate kinase 6	8.35E−03	19923437	1	1	1
589	ataxia telangiectasia mutated protein isoform 1;	8.37E−03	20336203	1	1	1
590	ring finger protein 31 [*Homo sapiens*]	8.40E−03	38045940	1	1	1
591	hypothetical protein DKFZp564J047 [*Homo sapiens*]	8.44E−03	14149781	1	1	1
592	VGF nerve growth factor inducible precursor; neuro	8.47E−03	17136078	1	1	1
593	LIM domain kinase 2 isoform 2a [*Homo sapiens*]	8.54E−03	5031869	1	1	1
594	spermiogenesis associated serine/threonine kinase	8.60E−03	14042947	1	1	1
595	fatty acid binding protein 5 (psoriasis-associated)	8.62E−03	4557581	1	1	1
596	PREDICTED: KIAA1549 protein [*Homo sapiens*]	8.65E−03	41199251	1	1	1
597	meningioma expressed antigen 5 (hyaluronidase); hy	8.71E−03	11024698	1	1	1
598	PREDICTED: similar to apopolysialoglycoprotein -	8.72E−03	51464378	1	1	1
599	zinc finger protein 135 (clone pHZ-17); zinc finger protein 61 [*Homo* s	8.75E−03	34419633	1	1	1

TABLE 3.2-continued

Proteins identified in vitreous fluids (II)

	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
600	kelch-like 17; actinfilin [*Homo sapiens*]	8.82E−03	38194229	1	1	1
601	mitochondrial ribosomal protein S31; imogen 38 [Ho	8.84E−03	5031787	1	1	1
601	coatomer protein complex, subunit beta 2 (beta pri	8.85E−03	4758032	1	1	1
602	PREDICTED: KIAA0767 protein [*Homo sapiens*]	8.86E−03	17485400	1	1	1
603	synaptosomal-associated protein 25 isoform SNAP25A	8.87E−03	18765733	1	1	1
604	chromosome 14 open reading frame 8; p25 beta [*Homo sapiens*]	8.89E−03	27777659	1	1	1
605	ubiquitin specific protease 28 [*Homo sapiens*]	8.91E−03	16507200	1	1	1
606	zinc finger protein 553 [*Homo sapiens*]	8.94E−03	22749325	1	1	1
607	membrane associated guanylate kinase interacting protein-like 1 [*Homo*	9.00E−03	27735139	1	1	1
608	PREDICTED: hypothetical protein FLJ11811 [*Homo* sa	9.02E−03	42660246	1	1	1
609	protein kinase C substrate 80K-H; glucosidase II,	9.04E−03	4506077	1	1	1
610	polymerase (DNA directed), delta 2, regulatory subunit; polymerase (DNA	9.06E−03	5453924	1	1	1
611	PREDICTED: hypothetical protein XP_499090 [*Homo* s	9.07E−03	51465873	1	1	1
612	peroxiredoxin 3 isoform b; antioxidant protein 1; thioredoxin-dependen	9.08E−03	32483377	1	1	1
613	similar to hypothetical protein FLJ13659 [*Homo* sa	9.12E−03	21687266	1	1	1
614	PREDICTED: KIAA0542 gene product [*Homo sapiens*]	9.15E−03	51476003	1	1	1
615	PREDICTED: 5-azacytidine induced 1 [*Homo sapiens*]	9.17E−03	51474428	1	1	1
616	thyrotrophic embryonic factor; thyrotroph embryonic factor [*Homo sapien*	9.22E−03	4507431	1	1	1
617	zinc finger, CW-type with coiled-coil domain 3; n	9.24E−03	28872812	1	1	1
618	betaine-homocysteine methyltransferase 2 [*Homo* sa	9.24E−03	13162290	1	1	1
619	FLJ45949 protein [*Homo sapiens*]	9.25E−03	46409412	1	1	1
620	general transcription factor IIIC, polypeptide 1, alpha 220 kDa; general	9.27E−03	4753161	1	1	1
621	PR domain containing 5 [*Homo sapiens*]	9.30E−03	41349476	1	1	1
622	glycosyltransferase-like 1B; ortholog of mouse glycosyltransferase-lik	9.33E−03	33285008	1	1	1
623	bullous pemphigoid antigen 1 isoform 1; bullous p	9.37E−03	34577047	1	3	3
624	mitofusin 1 isoform 1; putative transmembrane GTPase [*Homo sapiens*]	9.39E−03	45269137	1	1	1
624	hypothetical protein FLJ37440 [*Homo sapiens*]	9.41E−03	23397471	1	1	1
625	polycystic kidney disease and receptor for egg jel	9.42E−03	5174633	1	1	1
626	doublecortin and CaM kinase-like 1; doublecortin-l	9.42E−03	4758128	1	1	1
627	PREDICTED: similar to synaptotagmin-like protein	9.42E−03	18562480	1	1	1
628	latrophilin 3; latrophilin homolog 3 (cow); lectomedin 3 [*Homo sapiens*	9.52E−03	14149677	1	1	1
629	down-regulated in adenoma protein; down-regulated	9.52E−03	4557535	1	1	1
630	integrin-linked kinase-associated protein phosphat	9.52E−03	13540531	1	1	1
631	S-adenosylhomocysteine hydrolase; adenosylhomocyst	9.58E−03	9951915	1	1	1
632	A-kinase anchor protein 8; A-kinase anchor protein, 95 kDa [*Homo sapiens*	9.60E−03	5031579	1	1	1
633	PREDICTED: FYVE, RhoGEF and PH domain containing 5 [*Homo sapiens*]	9.64E−03	51463913	1	1	1
634	PREDICTED: similar to KIAA1074 protein [*Homo sapiens*]	9.67E−03	42661355	1	1	1
635	ryanodine receptor 2 [*Homo sapiens*]	9.67E−03	4506757	1	1	1
636	actin related protein M1 [*Homo sapiens*]	9.72E−03	19549325	1	1	1
637	chromosome 19 open reading frame 21 [*Homo sapiens*	9.72E−03	27735067	1	1	1
638	mirror-image polydactyly 1; mirror-image polydact	9.72E−03	23503325	1	1	1
639	early growth response 1; nerve growth factor-induc	9.73E−03	4503493	1	1	1
640	protease, serine, 15; Lon protease-like protein;	9.76E−03	21396489	1	1	1
641	centromere protein F (350/400 kD); centromere prot	9.77E−03	14670381	1	1	1
642	ring finger and WD repeat domain 1 isoform 1; rin	9.78E−03	45594312	1	1	1
643	PREDICTED: KIAA0226 gene product [*Homo sapiens*]	9.79E−03	51464047	1	1	1
644	phospholipase C, gamma 2 (phosphatidylinositol-spe	9.89E−03	4505871	1	1	1
645	transforming, acidic coiled-coil containing prote	9.91E−03	11119414	1	1	1
646	cadherin 10, type 2 preproprotein; cadherin-10; T2-cadherin [*Homo* sapi	9.94E−03	16306530	1	1	1
647	insulysin; insulinase [*Homo sapiens*]	1.00E−02	4826770	1	1	1
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No
	Protein Name	P (probability)	Accession No	Id Pep	Id No on 19	Pat No

? indicates text missing or illegible when filed

[0058]

TABLE 3.3

Proteins identified in vitreous fluid (III)

	Protein	Accession number	Peptide Hits	Probability of randomized identification
1	PREDICTED: KIAA0542 gene product [*Homo sapiens*]	51476003	1	9.15E−03
2	PREDICTED: hypothetical protein XP_498867 [*Homo sapiens*]	51475312	1	7.61E−03
3	PREDICTED: KIAA0179 [*Homo sapiens*]	51475296	1	3.71E−03
4	PREDICTED: similar to 60S ribosomal protein L23a [*Homo sapiens*]	51474226	1	6.71E−04
5	PREDICTED: similar to Ig heavy chain V-I region HG3 precursor [*Homo sa*	51472657	1	7.98E−03
6	PREDICTED: hypothetical protein FLJ25756 [*Homo sapiens*]	51472397	1	7.01E−03
7	PREDICTED: GCN1 general control of amino-acid synthesis 1-like 1 [*Homo*	51471344	1	2.23E−03
8	PREDICTED: similar to Olfactory receptor 52L1 [*Homo sapiens*]	51470915	1	9.64E−03
9	PREDICTED: KIAA0367 protein [*Homo sapiens*]	51467193	1	1.19E−03
10	PREDICTED: T-box 18 [*Homo sapiens*]	51465420	1	5.28E−03
11	PREDICTED: similar to RIKEN cDNA G431001E03 gene [*Homo sapiens*]	51464570	1	4.73E−03
12	PREDICTED: hypothetical protein DKFZp762K222 [*Homo sapiens*]	51464327	1	7.47E−03
13	PREDICTED: KIAA0226 gene product [*Homo sapiens*]	51464047	1	9.79E−03
14	PREDICTED: FYVE, RhoGEF and PH domain containing 5 [*Homo sapiens*]	51463913	1	9.64E−03
15	PREDICTED: similar to sin3 associated polypeptide p18 [*Homo sapiens*]	51461003	1	1.83E−03
16	PREDICTED: cardiomyopathy associated 3 [*Homo sapiens*]	51460893	1	6.18E−04
17	PREDICTED: KIAA1414 protein [*Homo sapiens*]	51460558	1	4.99E−03
18	PREDICTED: similar to 40S ribosomal protein S7 (S8) [*Homo sapiens*]	51459063	1	2.47E−03
19	PREDICTED: similar to Fc receptor homolog expressed in B cells; Fc rec	51458812	1	7.24E−03
20	hypothetical protein LOC255189 [*Homo sapiens*]	47106065	1	3.82E−03
21	zinc finger, MYND domain containing 11 isoform b; adenovirus 5 E1A bin	47078243	1	2.97E−03
22	haptoglobin-related protein; Haptoglobin-related locus [*Homo sapiens*]	45580723	2	6.97E−05
23	MAS-related GPR, member D; mas-related G protein-coupled MRGD [*Homo sa*	42794265	1	2.48E−03
24	KIAA0317 [*Homo sapiens*]	42734315	1	1.98E−03
25	clusterin isoform 1; complement-associated protein SP-40 [*Homo sapiens*	42716297	1	5.04E−12
26	PREDICTED: similar to KIAA1074 protein [*Homo sapiens*]	42661355	1	9.67E−03
27	PREDICTED: KIAA1030 protein [*Homo sapiens*]	42659643	1	6.08E−04
28	PREDICTED: similar to tudor domain containing 6 protein [*Homo sapiens*]	42657656	1	1.40E−03
29	PREDICTED: hypothetical protein XP_376099 [*Homo sapiens*]	42656388	1	6.72E−05
30	vacuolar protein sorting 13C protein [*Homo sapiens*]	42544121	1	3.48E−03
31	semaphorin 3D; collapsin 2 [*Homo sapiens*]	41406086	1	9.26E−03
32	PREDICTED: hypothetical protein XP_373740 [*Homo sapiens*]	41222847	1	5.96E−05
33	PREDICTED: TBP-interacting protein [*Homo sapiens*]	41144277	1	6.46E−03
34	thrombospondin 2 precursor [*Homo sapiens*]	40317628	1	6.85E−03
35	hypothetical protein MGC34732 [*Homo sapiens*]	40255180	1	9.92E−05
36	zinc finger protein 295 [*Homo sapiens*]	40254945	1	8.35E−03
37	serine (or cysteine) proteinase inhibitor, clade F (alpha-2 antiplasmi	39725934	2	3.34E−08
38	kelch-like 17; actinfilin [*Homo sapiens*]	38194229	1	8.82E−03
39	gelsolin isoform b [*Homo sapiens*]	38044288	2	2.15E−08
40	KIAA0625 protein [*Homo sapiens*]	37620159	1	5.44E−03
41	PREDICTED: similar to RIKEN cDNA 2210009G21 [*Homo sapiens*]	37556081	1	4.97E−03
42	nudix (nucleoside diphosphate linked moiety X)-type motif 11 [*Homo sap*	37221177	1	4.64E−03
43	hypothetical protein DKFZp434O0527 [*Homo sapiens*]	34916026	1	7.73E−03
44	kelch-like 8 [*Homo sapiens*]	34101268	1	2.43E−03
45	biliverdin reductase A [*Homo sapiens*]	33589854	1	1.86E−03
46	bromodomain adjacent to zinc finger domain, 1A isoform a; ATP-dependen	32967603	1	1.48E−03
47	vitamin D-binding protein precursor; vitamin D-binding alpha-globulin	32483410	6	1.40E−12
48	peroxiredoxin 3 isoform b; antioxidant protein 1; thioredoxin-dependen	32483377	1	9.08E−03
49	Ral GEF with PH domain and SH3 binding motif 2; Ral-A exchange factor	32441283	1	3.25E−03
50	prostaglandin D2 synthase 21 kDa; prostaglandin D synthase; prostagland	32171249	1	1.22E−09
51	hypothetical protein MGC5601; similar to acyl-CoA dehydrogenase [*Homo*	31543201	1	5.87E−04
52	zinc finger protein 606 [*Homo sapiens*]	31377839	1	9.52E−04
53	family with sequence similarity 29, member A [*Homo sapiens*]	31377562	1	1.71E−04
54	phosphatidylinositol-4-phosphate 5-kinase, type I, gamma; phosphatidyl	31317309	1	3.65E−03
55	testis-specific protein TSP-NY isoform a [*Homo sapiens*]	30348972	1	5.38E−03
56	H63 breast cancer expressed gene isoform a; gene associated with HER-2	29826289	1	1.59E−03
57	plexin B3; plexin-B3; plexin 6 [*Homo sapiens*]	29336063	1	9.96E−03
58	eukaryotic translation initiation factor 2C, 3 isoform a; argonaute 3	29294647	1	4.80E−03
59	dual oxidase 2 precursor; dual oxidase-like domains 2; nicotinamide ad	28872753	1	2.36E−04
60	KIAA1404 protein [*Homo sapiens*]	28626521	1	3.58E−03
61	Bardet-Biedl syndrome 1 [*Homo sapiens*]	28395045	1	2.36E−03
62	zinc finger protein 545 [*Homo sapiens*]	28274686	1	5.96E−03
63	chromosome 14 open reading frame 8; p25 beta [*Homo sapiens*]	27777659	1	8.89E−03
64	membrane associated guanylate kinase interacting protein-like 1 [*Homo*	27735139	1	9.00E−03
65	hypothetical protein FLJ32440 [*Homo sapiens*]	27734761	1	3.97E−05
66	sperm associated antigen 6 isoform 2; sperm flagellar protein; axoneme	27262641	1	2.37E−04
67	mutS homolog 5 isoform a; mutS (*E. coli*) homolog 5 [*Homo sapiens*]	26638662	1	6.18E−03
68	transcription factor-like protein 4 isoform gamma; MAX-like bHLHZIP pr	24586667	1	2.12E−03

TABLE 3.3-continued

Proteins identified in vitreous fluid (III)

	Protein	Accession number	Peptide Hits	Probability of randomized identification
69	myosin IIIA; deafness, autosomal recessive 30 [*Homo sapiens*]	24586657	1	9.51E-04
70	MDN1, midasin homolog [*Homo sapiens*]	24415404	1	5.39E-03
71	vitelliform macular dystrophy 2-like 2; bestrophin 4 [*Homo sapiens*]	23397576	1	6.11E-03
72	elongation of very long chain fatty acids like 3 [*Homo sapiens*]	23097310	1	1.06E-03
73	zinc finger protein 560 [*Homo sapiens*]	22749003	1	2.18E-03
74	junctophilin 1; mitsugumin72; junctophilin type1 [*Homo sapiens*]	21735575	1	2.43E-03
75	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminylt	21686971	1	3.79E-03
76	hypothetical protein MGC27016 [*Homo sapiens*]	21450675	1	1.48E-03
77	DnaJ (Hsp40) homolog, subfamily C, member 1 [*Homo sapiens*]	21361912	1	3.37E-03
78	peptidoglycan recognition protein L precursor [*Homo sapiens*]	21361845	1	4.73E-04
79	Tax1 (human T-cell leukemia virus type I) binding protein 1; tax1-bind	21361682	1	1.14E-03
80	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiprotei	21361198	12	4.44E-14
81	T-cell activation kelch repeat protein [*Homo sapiens*]	21245132	1	5.41E-03
82	testis nuclear RNA-binding protein [*Homo sapiens*]	21245124	1	5.72E-03
83	alpha 1B-glycoprotein [*Homo sapiens*]	21071030	2	1.13E-10
84	mitogen-activated protein kinase 10 isoform 3; MAP kinase; JNK3 alpha	20986506	1	7.21E-03
85	toll-like receptor 8 isoform 1 [*Homo sapiens*]	20302166	1	2.90E-03
86	SLAM family member 7; CD2-like receptor activating cytotoxic cells; 19	19923572	1	5.67E-03
87	RAC/CDC42 exchange factor isoform 2 [*Homo sapiens*]	19311008	1	4.60E-03
88	vitronectin precursor; serum spreading factor; somatomedin B; compleme	18201911	1	1.38E-03
89	ribosomal protein L10-like protein [*Homo sapiens*]	18152783	1	1.50E-03
90	vacuolar protein sorting 35; maternal-embryonic 3; vacuolar protein so	17999541	1	4.10E-03
91	talin 1 [*Homo sapiens*]	16753233	1	6.05E-03
92	ankyrin repeat domain 30A; breast cancer antigen NY-BR-1 [*Homo sapiens*	16506285	1	3.16E-03
93	cadherin 10, type 2 preproprotein; cadherin-10; T2-cadherin [*Homo sapi*	16306530	1	9.94E-03
94	arginyl-tRNA synthetase [*Homo sapiens*]	15149476	1	4.28E-03
95	complement component 2 precursor; C3/C5 convertase [*Homo sapiens*]	14550407	1	8.23E-04
96	hypothetical protein MGC4308 [*Homo sapiens*]	14150167	1	7.51E-03
97	latrophilin 3; latrophilin homolog 3 (cow); lectomedin 3 [*Homo sapiens*	14149677	1	9.52E-03
98	ubiquitin specific protease 15; deubiquitinating enzyme [*Homo sapiens*]	14149627	1	6.90E-04
99	pantothenate kinase 3; pantothenic acid kinase [*Homo sapiens*]	13375789	1	1.01E-03
100	solute carrier family 39 (zinc transporter), member 6; LIV-1 protein,	12751475	1	3.83E-03
101	dual specificity phosphatase 5; serine/threonine specific protein phos	12707566	1	1.07E-03
102	protease, serine, 22; protease, serine S1 family member 22; tryptase e	11545839	1	5.01E-03
103	supervillin isoform 2; membrane-associated F-actin binding protein p20	11496982	1	1.75E-03
104	alpha-2-plasmin inhibitor; alpha-2-antiplasmin [*Homo sapiens*]	11386143	1	3.57E-06
105	hemopexin [*Homo sapiens*]	11321561	9	1.55E-10
106	tuberous sclerosis 2 isoform 2; tuberin isoform 1; tuberin isoform 2;	10938008	1	2.96E-04
107	tumor necrosis factor, alpha-induced protein 1 [*Homo sapiens*]	10863937	1	5.50E-03
108	orosomucoid 1 precursor; alpha-1-acid glycoprotein 1; Orosomucoid-1 (al	9257232	6	6.94E-10
109	hypothetical protein FLJ20580 [*Homo sapiens*]	8923541	1	2.18E-03
110	ankyrin repeat and SOCS box-containing 6 isoform 1 [*Homo sapiens*]	8923516	1	2.02E-03
111	hypothetical protein DKFZp434H2215 [*Homo sapiens*]	8922138	1	1.96E-03
112	hepatoma-derived growth factor, related protein 3; hepatoma-derived gro	7705320	1	3.24E-03
113	GTPase regulator associated with the focal adhesion kinase pp125; GTPas	7662208	1	1.75E-03
114	opticin; opticin, oculoglycan; oculoglycan [*Homo sapiens*]	7657419	1	1.57E-03
115	MYB binding protein 1a; p53-activated protein-2 [*Homo sapiens*]	7657351	1	6.25E-03
116	T-box 21; T-box expressed in T cells; T-cell-specific T-box transcripti	7019549	1	2.05E-03
117	rearranged L-myc fusion sequence; Zn-15 related [*Homo sapiens*]	6912632	1	8.08E-03
118	RBP4 gene product [*Homo sapiens*]	5803139	3	1.46E-12
119	polymerase (DNA directed), delta 2, regulatory subunit; polymerase (DNA	5453924	1	9.06E-03
120	ADP-ribosylation factor guanine nucleotide-exchange factor 2; brefeldin	5453573	1	8.25E-03
121	insulin receptor substrate 1 [*Homo sapiens*]	5031805	1	3.11E-03
122	macrophage erythroblast attacher; erythroblast macrophage protein [*Homo*	5031685	1	4.84E-03
123	A-kinase anchor protein 8; A-kinase anchor protein, 95 kDa [*Homo sapiens*	5031579	1	9.60E-03
124	general transcription factor IIH, polypeptide 1 (62 kD subunit) [*Homo sa*	4885365	1	5.41E-03
125	haptoglobin [*Homo sapiens*]	4826762	3	8.18E-07
126	fragile X mental retardation-related protein 1; Fragile X mental retard	4826736	1	3.60E-03
127	cadherin 15 preproprotein; M-cadherin; muscle-cadherin; myotubule-cadhe	4826669	1	4.15E-03
128	nebulin [*Homo sapiens*]	4758794	1	5.35E-03
129	growth factor receptor-bound protein 14 [*Homo sapiens*]	4758478	1	3.32E-03
130	golgi autoantigen, golgin subfamily b, macrogolgin (with transmembrane	4758454	1	5.05E-04
131	dual specificity phosphatase 8; serine/threonine specific protein phosp	4758212	1	1.48E-04
132	chimerin (chimaerin) 2; Chimerin 2 (GTPase-activating protein, rho, 3);	4757980	1	5.26E-03
133	beta-2-microglobulin precursor [*Homo sapiens*]	4757826	2	2.02E-11
134	general transcription factor IIIC, polypeptide 1, alpha 220 kDa; general	4753161	1	9.27E-03
135	phosphodiesterase 6A, alpha subunit [*Homo sapiens*]	4585864	1	8.81E-03
136	transferrin; PRO2086 protein [*Homo sapiens*]	4557871	34	1.33E-14
137	potassium voltage-gated channel, shaker-related subfamily, member 1 [*Ho*	4557685	1	2.42E-03
138	ceruloplasmin (ferroxidase); Ceruloplasmin [*Homo sapiens*]	4557485	4	4.83E-06

TABLE 3.3-continued

Proteins identified in vitreous fluid (III)

	Protein	Accession number	Peptide Hits	Probability of randomized identification
139	complement component 3 precursor; acylation-stimulating protein cleavag	4557385	7	5.04E−09
140	complement component 1 inhibitor precursor [*Homo sapiens*]	4557379	1	1.35E−06
141	beta-2-glycoprotein I precursor [*Homo sapiens*]	4557327	4	2.14E−10
142	apolipoprotein A-I precursor [*Homo sapiens*]	4557321	10	8.46E−09
143	angiotensinogen precursor; angiotensin II precursor pre-angiotensinoge	4557287	1	3.81E−05
144	skeletal muscle specific actinin, alpha 3 [*Homo sapiens*]	4557241	1	3.34E−04
145	transthyretin; prealbumin [*Homo sapiens*]	4507725	7	2.22E−14
146	thyrotrophic embryonic factor; thyrotroph embryonic factor [*Homo sapien*	4507431	1	9.22E−03
147	ryanodine receptor 2 [*Homo sapiens*]	4506757	1	9.67E−03
148	pregnancy-zone protein; Pregnancy zone protein [*Homo sapiens*]	4506355	1	2.56E−06
149	plasminogen [*Homo sapiens*]	4505881	1	6.54E−04
150	orosomucoid 2; alpha-1-acid glycoprotein, type 2 [*Homo sapiens*]	4505529	2	2.73E−13
151	neogenin homolog 1; neogenin (chicken) homolog 1 [*Homo sapiens*]	4505375	1	6.20E−03
152	kininogen 1; alpha-2-thiol proteinase inhibitor; bradykinin [*Homo sapie*	4504893	3	1.66E−05
153	interleukin 13 receptor alpha 1 precursor; IL13 receptor alpha-1 chain	4504647	1	6.69E−03
154	interleukin 10 receptor, alpha precursor [*Homo sapiens*]	4504633	1	4.94E−03
155	I factor (complement) [*Homo sapiens*]	4504579	1	9.49E−05
156	histidine-rich glycoprotein precursor; histidine-proline rich glycoprot	4504489	1	2.37E−07
157	coagulation factor XII precursor; Hageman factor [*Homo sapiens*]	4503629	1	4.68E−03
158	dihydrofolate reductase [*Homo sapiens*]	4503323	1	5.05E−03
159	centromere protein C 1; Centromere autoantigen C1 [*Homo sapiens*]	4502779	1	1.98E−03
160	corticosteroid binding globulin precursor; corticosteroid binding globu	4502595	1	1.35E−03
161	complement component 9 [*Homo sapiens*]	4502511	1	9.42E−03
162	complement component 4B proprotein [*Homo sapiens*]	4502501	3	3.11E−14
163	complement factor B preproprotein; C3 proactivator; C3 proaccelerator;	4502397	4	2.63E−09
164	serine (or cysteine) proteinase inhibitor, clade C (antithrombin), memb	4502261	2	1.58E−04
165	apolipoprotein A-IV precursor [*Homo sapiens*]	4502151	4	4.20E−11
166	apolipoprotein A-II precursor [*Homo sapiens*]	4502149	4	1.72E−06
167	alpha-1-microglobulin/bikunin precursor; Alpha-1-microglobulin/bikunin	4502067	1	8.33E−11
168	albumin precursor; PRO0883 protein [*Homo sapiens*]	4502027	103	1.33E−14
169	alpha-2-HS-glycoprotein; Alpha-2HS-glycoprotein [*Homo sapiens*]	4502005	1	4.23E−03
170	afamin precursor; alpha-albumin [*Homo sapiens*]	4501987	1	1.10E−12
171	alpha-1-antichymotrypsin, precursor; alpha-1-antichymotrypsin; antichym	4501843	1	1.19E−05

[**0059**]

TABLE 3.4

Proteins identified in vitreous fluid (IV)

	Protein	Accession number	Peptide Hits	Probability of randomized identification
1	PREDICTED: similar to Piccolo protein (Aczonin) [*Homo sapiens*]	51492882	1	9.11E−03
2	PREDICTED: similar to phosducin-like 3; phosducin-like 2; IAP-associat	51492730	1	9.80E−05
3	PREDICTED: hypothetical protein XP_498867 [*Homo sapiens*]	51475312	1	1.37E−03
4	PREDICTED: KIAA0179 [*Homo sapiens*]	51475296	1	8.94E−04
5	PREDICTED: 5-azacytidine induced 1 [*Homo sapiens*]	51474428	1	9.17E−03
6	PREDICTED: FLJ46675 protein [*Homo sapiens*]	51474152	1	6.48E−03
7	PREDICTED: similar to Golgi autoantigen, golgin subfamily A member 6 (	51472431	1	5.11E−03
8	PREDICTED: similar to centaurin, gamma-like family, member 1; ARF GTPa	51468155	1	6.34E−03
9	PREDICTED: similar to ribosomal protein L31 [*Homo sapiens*]	51466239	1	5.81E−04
10	PREDICTED: hypothetical protein XP_498937 [*Homo sapiens*]	51463864	1	3.47E−03
11	PREDICTED: cardiomyopathy associated 3 [*Homo sapiens*]	51460893	1	5.89E−05
12	M-phase phosphoprotein 1; mitotic kinesin-like protein [*Homo sapiens*]	46049114	1	4.11E−03
13	bifunctional phosphopantetheine adenylyl transferase/dephospho CoA kin	46048207	1	7.22E−03
14	hypothetical protein FLJ31322 [*Homo sapiens*]	45387953	1	1.29E−03
15	mitofusin 1 isoform 1; putative transmembrane GTPase [*Homo sapiens*]	45269137	1	9.39E−03
16	KIAA0317 [*Homo sapiens*]	42734315	1	5.58E−03
17	clusterin isoform 1; complement-associated protein SP-40 [*Homo sapiens*	42716297	4	1.66E−10
18	PREDICTED: hypothetical protein XP_376099 [*Homo sapiens*]	42656388	1	6.07E−03
19	nuclear receptor coactivator 7; estrogen receptor associated protein 1	42476175	1	6.25E−03
20	semaphorin 3D; collapsin 2 [*Homo sapiens*]	41406086	1	5.79E−04
21	importin 13; Ran binding protein 13; karyopherin 13 [*Homo sapiens*]	41281425	1	1.49E−04
22	PREDICTED: hypothetical protein XP_373740 [*Homo sapiens*]	41222847	2	1.59E−03

TABLE 3.4-continued

Proteins identified in vitreous fluid (IV)

	Protein	Accession number	Peptide Hits	Probability of randomized identification
23	U5 snRNP-specific protein, 116 kD [*Homo sapiens*]	41152056	1	1.88E−03
24	PREDICTED: hypothetical protein LOC285335 [*Homo sapiens*]	41146536	1	2.58E−03
25	dickkopf homolog 3; RIG-like 7-1; RIG-like 5-6; dickkopf (*Xenopus laev*	40548389	1	2.56E−04
26	retinitis pigmentosa 1-like 1 [*Homo sapiens*]	40255278	1	5.54E−03
27	hypothetical protein LOC168850 [*Homo sapiens*]	39753953	1	6.17E−03
28	serine (or cysteine) proteinase inhibitor, clade F (alpha-2 antiplasmi	39725934	6	1.03E−08
29	FLJ25005 protein [*Homo sapiens*]	38570111	1	6.94E−03
30	pancreatic ribonuclease precursor; RNase upl-1 [*Homo sapiens*]	38201682	1	1.20E−04
31	gelsolin isoform b [*Homo sapiens*]	38044288	2	7.08E−08
32	sodium-dependent organic anion transporter [*Homo sapiens*]	37537552	1	6.81E−05
33	hypothetical protein DKFZp434O0527 [*Homo sapiens*]	34916026	1	7.81E−04
34	zinc finger protein 135 (clone pHZ-17); zinc finger protein 61 [*Homo s*	34419633	1	8.75E−03
35	hypothetical protein MGC35261 [*Homo sapiens*]	33859793	1	1.07E−03
36	transmembrane channel-like 7 [*Homo sapiens*]	33636691	1	5.84E−03
37	glycosyltransferase-like 1B; ortholog of mouse glycosyltransferase-lik	33285008	1	9.33E−03
38	cardiomyopathy associated 5; 2310076E16Rik [*Homo sapiens*]	32698780	1	8.25E−03
39	cytosolic ovarian carcinoma antigen 1 isoform b; APK1 antigen [*Homo sa*	32528291	1	2.72E−03
40	vitamin D-binding protein precursor; vitamin D-binding alpha-globulin	32483410	4	1.49E−13
41	cytosolic phosphoenolpyruvate carboxykinase 1; phosphoenolpyruvate car	32483401	1	4.79E−03
42	prostaglandin D2 synthase 21 kDa; prostaglandin D synthase; prostagland	32171249	1	7.44E−07
43	hypothetical protein FLJ38973 [*Homo sapiens*]	31581541	1	1.93E−03
44	eukaryotic translation initiation factor 2C, 3 isoform a; argonaute 3	29294647	1	3.35E−03
45	notch4 preproprotein; Notch (Drosophila) homolog 4 [*Homo sapiens*]	27894370	1	5.09E−04
46	nucleoporin 210; nuclear pore membrane glycoprotein 210 [*Homo sapiens*]	27477134	1	9.34E−03
47	transcription factor-like protein 4 isoform gamma; MAX-like bHLHZIP pr	24586667	1	8.39E−03
48	serine/threonine kinase 36 (fused homolog, Drosophila); serine/threoni	24308123	1	2.26E−03
49	cytoplasmic FMR1 interacting protein 1; selective hybridizing clone (m	24307969	1	1.25E−03
50	zinc finger protein 560 [*Homo sapiens*]	22749003	1	1.43E−03
51	junctophilin 1; mitsugumin72; junctophilin type1 [*Homo sapiens*]	21735575	1	2.50E−03
52	zinc finger protein 625 [*Homo sapiens*]	21687161	1	6.05E−03
53	chromosome 10 open reading frame 87; Em:AC061711.1 [*Homo sapiens*]	21389373	1	4.19E−03
54	PAP associated domain containing 1 [*Homo sapiens*]	21361704	1	4.69E−04
55	transient receptor potential cation channel, subfamily M, member 8 [*Ho*	21361691	1	3.58E−04
56	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiprotei	21361198	6	1.60E−10
57	alpha 1B-glycoprotein [*Homo sapiens*]	21071030	2	2.75E−07
58	proprotein convertase subtilisin/kexin type 5 preproprotein; protease	20336246	1	1.54E−04
59	vitronectin precursor; serum spreading factor; somatomedin B; compleme	18201911	1	4.77E−05
60	ribosomal protein L10-like protein [*Homo sapiens*]	18152783	1	1.59E−03
61	ubiquitin specific protease 28 [*Homo sapiens*]	16507200	1	8.91E−03
62	E1A binding protein p400; CAGH32 protein; trinucleotide repeat contain	15805014	1	4.47E−03
63	postreplication repair protein hRAD18p; RAD18, S. cerevisiae, homolog	14550405	1	2.76E−03
64	hypothetical protein MGC10882 [*Homo sapiens*]	14249240	1	6.22E−05
65	hypothetical protein MGC4308 [*Homo sapiens*]	14150167	1	7.84E−03
66	dual specificity phosphatase 5; serine/threonine specific protein phos	12707566	1	1.12E−04
67	crystallin, beta A3; eye lens structural protein [*Homo sapiens*]	12056461	3	2.72E−10
68	SH3 and multiple ankyrin repeat domains 1; somatostatin receptor-inter	11968152	1	8.27E−04
69	fibrinogen, gamma chain isoform gamma-B precursor [*Homo sapiens*]	11761633	1	3.10E−11
70	potassium channel, subfamily K, member 12; tandem pore domain potassiu	11545761	1	4.26E−04
71	kallikrein 14 preproprotein; kallikrein-like protein 6 [*Homo sapiens*]	11545747	1	3.25E−04
72	supervillin isoform 2; membrane-associated F-actin binding protein p20	11496982	1	2.86E−03
73	prosaposin (variant Gaucher disease and variant metachromatic leukodys	11386147	1	1.13E−04
74	succinate-CoA ligase, ADP-forming, beta subunit; SCS-betaA for ATP spe	11321583	1	5.79E−03
75	hemopexin [*Homo sapiens*]	11321561	5	2.68E−05
76	ATP-binding cassette, sub-family F, member 1; ATP-binding cassette 50;	10947135	1	6.21E−03
77	EGF-containing fibulin-like extracellular matrix protein 1 isoform b; f	9665253	3	1.10E−10
78	orosomucoid 1 precursor; alpha-1-acid glycoprotein 1; Orosomucoid-1 (al	9257232	1	3.85E−08
79	hypothetical protein FLJ20626 [*Homo sapiens*]	8923582	1	3.88E−03
80	hypothetical protein FLJ20580 [*Homo sapiens*]	8923541	1	8.20E−04
81	crystallin, gamma S; crystallin, gamma 8 [*Homo sapiens*]	8922120	2	1.57E−11
82	cleavage and polyadenylation specific factor 3, 73 kDa; cleavage and pol	7706427	1	1.10E−03
83	glyceraldehyde-3-phosphate dehydrogenase [*Homo sapiens*]	7669492	1	7.38E−07
84	GTPase regulator associated with the focal adhesion kinase pp125; GTPas	7662208	1	1.08E−03
85	opticin; opticin, oculoglycan; oculoglycan [*Homo sapiens*]	7657419	1	3.15E−09
86	plasma glutathione peroxidase 3 precursor [*Homo sapiens*]	6006001	2	6.81E−10
87	Wnt inhibitory factor-1 precursor; Wnt inhibitory factor-1 [*Homo sapien*	6005950	1	8.17E−04
88	RBP4 gene product [*Homo sapiens*]	5803139	1	1.46E−03
89	tripeptidyl-peptidase I precursor [*Homo sapiens*]	5729770	1	3.73E−05
90	translocase of inner mitochondrial membrane 23 (yeast) homolog; translo	5454122	1	5.15E−03
91	structural maintenance of chromosomes 2-like 1; structural maintenance	5453591	1	2.58E−03
92	nebulin [*Homo sapiens*]	4758794	1	9.60E−03

TABLE 3.4-continued

Proteins identified in vitreous fluid (IV)

	Protein	Accession number	Peptide Hits	Probability of randomized identification
93	dual specificity phosphatase 8; serine/threonine specific protein phosp	4758212	1	4.25E−05
94	beta-2-microglobulin precursor [*Homo sapiens*]	4757826	2	3.04E−08
95	phosphodiesterase 6A, alpha subunit [*Homo sapiens*]	4585864	1	2.08E−04
96	transferrin; PRO2086 protein [*Homo sapiens*]	4557871	34	8.64E−13
97	galactosylceramidase precursor; galactocerebrosidase; Galactosylceramin	4557613	1	4.63E−04
98	ceruloplasmin (ferroxidase); Ceruloplasmin [*Homo sapiens*]	4557485	4	2.10E−08
99	complement component 3 precursor; acylation-stimulating protein cleavag	4557385	4	1.12E−09
100	complement component 1 inhibitor precursor [*Homo sapiens*]	4557379	1	3.36E−07
101	beta-2-glycoprotein I precursor [*Homo sapiens*]	4557327	1	3.73E−08
102	apolipoprotein E precursor; apolipoprotein E3 [*Homo sapiens*]	4557325	2	4.77E−09
103	apolipoprotein A-I precursor [*Homo sapiens*]	4557321	6	2.84E−09
104	alpha-2-macroglobulin precursor [*Homo sapiens*]	4557225	1	6.33E−04
105	chitinase 3-like 1; cartilage glycoprotein-39 [*Homo sapiens*]	4557018	1	9.78E−06
106	transthyretin; prealbumin [*Homo sapiens*]	4507725	8	8.88E−15
107	SRY (sex determining region Y)-box 4; SRY-related HMG-box gene 4; ecotr	4507163	1	5.28E−03
108	ribosomal protein S4, Y-linked 1 Y isoform; 40S ribosomal protein S4, Y	4506727	1	8.87E−05
109	RBP3 gene product [*Homo sapiens*]	4506453	4	1.63E−09
110	plasminogen [*Homo sapiens*]	4505881	1	2.12E−04
111	orosomucoid 2; alpha-1-acid glycoprotein, type 2 [*Homo sapiens*]	4505529	2	4.67E−06
112	kininogen 1; alpha-2-thiol proteinase inhibitor; bradykinin [*Homo sapie*	4504893	1	3.72E−04
113	I factor (complement) [*Homo sapiens*]	4504579	1	9.70E−07
114	histidine-rich glycoprotein precursor; histidine-proline rich glycoprot	4504489	1	5.05E−08
115	beta globin; hemoglobin beta chain [*Homo sapiens*]	4504349	2	3.04E−07
116	alpha 2 globin; alpha globin; alpha-2 globin [*Homo sapiens*]	4504345	1	4.25E−04
117	cathepsin D preproprotein [*Homo sapiens*]	4503143	2	8.90E−04
118	crystallin, beta B2; eye lens structural protein [*Homo sapiens*]	4503063	1	5.59E−06
119	crystallin, beta B1; eye lens structural protein [*Homo sapiens*]	4503061	6	5.62E−08
120	crystallin, alpha B; heat-shock 20 kD like-protein [*Homo sapiens*]	4503057	2	1.53E−06
121	crystallin, alpha A; crystallin, alpha-1; human alphaA-crystallin (CRYA	4503055	4	5.90E−05
122	cholinergic receptor, nicotinic, alpha polypeptide 2 (neuronal) [*Homo s*	4502823	1	3.30E−03
123	centromere protein C 1; Centromere autoantigen C1 [*Homo sapiens*]	4502779	1	1.23E−03
124	complement component 4B proprotein [*Homo sapiens*]	4502501	6	2.35E−06
125	complement factor B preproprotein; C3 proactivator; C3 proaccelerator;	4502397	2	6.20E−08
126	serine (or cysteine) proteinase inhibitor, clade C (antithrombin), memb	4502261	3	1.03E−06
127	apolipoprotein A-II precursor [*Homo sapiens*]	4502149	1	1.39E−06
128	albumin precursor; PRO0883 protein [*Homo sapiens*]	4502027	66	3.00E−14
129	alpha-2-HS-glycoprotein; Alpha-2HS-glycoprotein [*Homo sapiens*]	4502005	1	3.79E−04
130	alkylglycerone phosphate synthase precursor [*Homo sapiens*]	4501993	1	5.09E−03
131	afamin precursor; alpha-albumin [*Homo sapiens*]	4501987	1	4.49E−07
132	alpha-1-antichymotrypsin, precursor; alpha-1-antichymotrypsin: antichym	4501843	1	2.45E−04

[0060]

TABLE 3.5

Vitreous proteins identified in three ISS patients by total vitrectromy (V)

	Reference	Accession	MW	P (pro)	Patients
1	Serum albumin precursor	P02768	69321.63	1.00E−30	CC, TR, NT
2	Alpha 2 globin variant (Fragment)	Q53F97	15270.94	1.00E−30	CC, TR, NT
3	Serotransferrin precursor	P02787	76999.66	1.44E−14	CC, TR, NT
1	Hemoglobin delta subunit	P02042	15914.25	3.72E−13	CC, TR, NT
2	Alpha-1-acid glycoprotein 1 precursor	P02763	23496.77	3.08E−10	CC, TR, NT
3	IGLC2 protein	Q567P1	24784.13	1.05E−11	CC, TR, NT
4	Clusterin precursor	P10909	52461.05	1.87E−08	CC, TR, NT
5	Beta-globin gene from a thalassemia patient	Q14473	18918.59	1.67E−14	CC, TR, NT
6	Hypothetical protein FLJ16039	Q6ZNI2	79911.39	1.27E−03	CC, TR, NT
7	Voltage-dependent N-type calcium channel alpha-1B subunit	Q00975	262326.3	1.38E−04	CC, TR, NT
8	Transthyretin precursor	P02766	15877.05	1.00E−30	TR, CC
9	Ig gamma-1 chain C region	P01857	36083.16	2.68E−13	TR, CC
10	Pigment epithelium-derived factor precursor	P36955	46313.36	2.54E−12	CC, TR
11	Collagen alpha 1(II) chain precursor	P02458	134410.6	2.28E−07	TR, CC
12	Hemopexin precursor	P02790	51643.32	1.00E−30	CC, TR
13	Alpha-2-macroglobulin precursor	P01023	163174.3	5.92E−13	CC, TR
14	Alpha-1-antitrypsin precursor	P01009	46707.09	3.42E−13	CC, TR

TABLE 3.5-continued

Vitreous proteins identified in three ISS patients by total vitrectromy (V)

	Reference	Accession	MW	P (pro)	Patients
15	Interphotoreceptor retinoid-binding protein precursor	P10745	135277.8	3.33E−15	TR, CC
16	Hypothetical protein	Q569I7	20655.36	9.77E−14	TR, CC
17	Hypothetical protein DKFZp686I04196 (Fragment)	Q6N093	46031.66	1.15E−10	TR, CC
18	Opticin precursor (Oculoglycan)	Q9UBM4	37237.39	1.70E−13	CC, TR
19	Complement C4-A precursor	P0C0L4	192649.5	3.64E−13	CC, TR
20	IGKC protein	Q502W4	25919.92	1.00E−30	CC, TR
21	Glutathione peroxidase 3 precursor	P22352	25488.96	1.97E−09	CC, TR
22	Prostaglandin-H2 D-isomerase precursor	P41222	21015.35	8.44E−14	CC, TR
23	Apolipoprotein A-I precursor	P02647	30758.94	3.33E−09	CC, TR
24	Vitamin D-binding protein	Q6GTG1	52902.04	8.22E−14	CC, TR
25	VH1 protein precursor (Fragment)	O95978	17292.5	1.44E−07	CC, TR
26	Hypothetical protein DKFZp686G2174	Q63HK5	118419.6	2.46E−03	TR, CC
27	Apolipoprotein A-II precursor	P02652	11167.9	7.31E−11	CC, TR
28	Keratin, type I cytoskeletal 9	P35527	62091.76	1.00E−30	TR, CC
29	Haptoglobin precursor	P00738	45176.59	6.64E−10	TR, CC
30	Ceruloplasmin precursor	P00450	122127.6	5.53E−08	TR, CC
31	Alpha crystallin B chain	P02511	20146.43	1.80E−07	NT, CC
32	Dickkopf-related protein 3 precursor	Q9UBP4	38266.07	1.29E−05	TR, CC
33	Ig gamma-3 chain C region	P01860	32309.81	3.71E−13	CC, TR
34	Adenosine A3 receptor	P33765	36160.19	1.70E−03	CC, NT
35	Solute carrier organic anion transporter family member 5A1	Q9H2Y9	91818.61	2.31E−03	CC, TR
36	Complement C3 precursor	P01024	187045.3	1.11E−15	CC
37	Keratin, type II cytoskeletal 1	P04264	65846.88	3.59E−12	TR
38	Carbonic anhydrase 1	P00915	28721.34	4.94E−13	NT
39	Beta crystallin S	P22914	20861.95	4.62E−13	NT
40	Peroxiredoxin 2	P32119	21747.2	1.00E−30	NT
41	Alpha crystallin A chain	P02489	19896.9	6.75E−07	NT
42	Osteopontin precursor	P10451	35401.25	9.00E−11	CC
43	Keratin, type I cytoskeletal 10	P13645	59482.76	1.49E−12	TR
44	Keratin, type II cytoskeletal 2	P35908	65825.37	5.53E−08	TR
45	Calcineurin-binding protein Cabin 1	Q9Y6J0	246194.6	3.19E−03	NT
46	Ig heavy chain V-III region	P01764	12574.22	9.50E−08	TR
47	Beta crystallin B2	P43320	23234.38	8.03E−11	NT
48	Alpha-1B-glycoprotein precursor	P04217	54238.7	1.51E−08	CC
49	Integrin alpha-5 precursor	P08648	114464.9	5.43E−04	NT
50	Alpha-1-acid glycoprotein 2 precursor	P19652	23587.64	4.04E−13	CC
51	Peroxiredoxin 1	Q06830	22096.28	4.12E−06	NT
52	Hypothetical protein DKFZp781M0386	Q5CZ94	24986.3	9.70E−05	CC
53	Hypothetical protein DKFZp686M24218	Q6MZX7	52387.13	3.02E−13	CC
54	NIR3	Q9BZ72	148839.5	4.48E−06	NT
55	Plasma protease C1 inhibitor precursor	P05155	55119.49	1.54E−04	CC, TR
56	Calmodulin binding transcription activator 1	Q5VUE1	183554.8	1.46E−03	TR, CC
57	Hypothetical protein FLJ16692	Q6ZMT6	16180.33	1.09E−03	CC, TR
58	Haptoglobin-related protein precursor	P00739	38982.66	8.59E−07	CC
59	Cystatin C precursor	P01034	15789.08	2.31E−04	CC
60	tRNA (guanine-N(7)-)-methyltransferase	Q9UBP6	31451.11	3.95E−05	NT
61	Calsyntenin-1 precursor	O94985	109723.7	1.10E−05	CC
62	Carbonic anhydrase 2	P00918	29096.89	2.58E−05	NT
63	Amyloid-like protein 2 precursor	Q06481	86900.28	5.97E−03	CC
64	Elastic titin (Fragment)	Q10465	882501.8	6.73E−04	CC
65	Collagen alpha 2(IX) chain precursor	Q14055	65090.96	6.00E−08	TR
66	Hypothetical protein DKFZp686J11235 (Fragment)	Q6MZW0	54424.95	1.06E−05	CC
67	L-lactate dehydrogenase A-like 6A	Q6ZMR3	36484.2	2.33E−04	NT
68	Spectrin alpha chain, erythrocyte	P02549	279742.3	2.09E−05	NT
69	Plasma retinol-binding protein precursor	P02753	22995.26	1.33E−13	TR
70	Tripeptidyl-peptidase I precursor	O14773	61190.67	1.00E−30	CC
71	Toll-like receptor 3 precursor	O15455	103762.9	4.01E−03	NT
72	SART-1 (Squamous cell carcinoma antigen recognized by T cells 1)	O43290	90200.29	8.43E−03	TR
73	KIAA0425 protein (Fragment)	O43308	141056.5	1.74E−03	NT
74	Chondromodulin-I precursor	O75829	37078.55	5.16E−10	TR
75	Arginyl-tRNA--protein transferase 1	O95260	59052.28	6.80E−03	CC
76	Beta-tubulin cofactor D	O95458	138562.4	6.55E−03	CC
77	Prothrombin precursor	P00734	69992.2	1.44E−04	TR
78	Complement factor B precursor	P00751	85478.58	5.53E−04	CC
79	Alpha-1-antichymotrypsin precursor	P01011	47620.63	9.77E−06	CC
80	Angiotensinogen precursor	P01019	53120.61	5.32E−05	CC
81	Keratin, type I cytoskeletal 14	P02533	51458.45	2.83E−04	TR
82	Apolipoprotein E precursor (Apo-E)	P02649	36131.79	8.83E−07	CC
83	Fibrinogen gamma chain precursor	P02679	51478.88	4.23E−05	CC
84	Band 3 anion transport protein	P02730	101727.8	1.72E−06	NT
85	AMBP protein precursor	P02760	38973.99	6.52E−04	CC
86	Catalase	P04040	59587.83	3.92E−04	NT

TABLE 3.5-continued

Vitreous proteins identified in three ISS patients by total vitrectromy (V)

	Reference	Accession	MW	P (pro)	Patients
87	Krueppel-related zinc finger protein 2	P10073	12059.54	4.92E−03	NT
88	Versican core protein precursor	P13611	372589	2.27E−06	CC
89	Guanine nucleotide-binding protein	P19087	40019.09	2.61E−04	TR
90	Inter-alpha-trypsin inhibitor heavy chain H2 precursor	P19823	106369.8	2.75E−03	CC
91	Inter-alpha-trypsin inhibitor heavy chain H1 precursor	P19827	101325.8	3.23E−03	TR
92	Large proline-rich protein BAT3	P46379	119334.2	3.20E−04	NT
93	Cadherin-8 precursor	P55286	88198.66	1.68E−03	CC
94	Low-density lipoprotein receptor-related protein 2 precursor	P98164	521587.6	3.27E−05	CC
95	Galectin-3 binding protein precursor	Q08380	65289.4	8.46E−07	TR
96	EGF-containing fibulin-like extracellular matrix protein 1 precursor	Q12805	54604.29	1.62E−03	CC
97	Ectonucleotide pyrophosphatase/phosphodiesterase 2	Q13822	98939.61	1.61E−04	CC
98	Keratin 10	Q14664	57212.99	8.68E−03	TR
99	Hypothetical protein FLJ25351	Q53TS8	71114	4.40E−04	TR
100	KIAA0467 protein	Q5T011	230969.8	3.37E−03	CC
101	OTTHUMP00000018325	Q5VW09	53975.58	8.38E−04	CC
102	LOC150763 protein	Q6NUI2	87507.18	9.17E−05	CC
103	Hypothetical protein	Q6PHR9	9188.304	2.03E−03	CC
104	TROAP protein	Q6PJU7	15883.54	5.01E−03	CC
105	QMDP9344	Q6UXP3	13598.86	6.72E−03	CC
106	Nicotinate phosphoribosyltransferase-like protein	Q6XQN6	60239.51	6.56E−03	TR
107	Hypothetical protein FLJ26301	Q6ZP85	25787.31	7.38E−03	TR
108	Hypothetical protein FLJ46155	Q6ZRR8	15002.66	2.28E−03	TR
109	ABC A13	Q86UQ4	575811.8	5.71E−03	NT
110	FLJ35848 protein (Fragment)	Q8IVZ7	41676.67	4.20E−03	NT
111	Hypothetical protein FLJ38687	Q8N8Z1	16623.52	1.77E−04	TR
112	Unc-13 homolog C	Q8NB66	135534.9	3.92E−03	TR
113	Hypothetical protein DKFZp434D011	Q8NDL9	97472.62	2.27E−03	CC
114	Tubulin tyrosine ligase-like protein 11	Q8NHH1	57999.14	7.78E−03	TR
115	CLL-associated antigen KW-2	Q8TDG9	96521.61	2.07E−03	TR
116	Hypothetical protein FLJ22955	Q8WVC6	26533.31	6.76E−03	CC
117	Very large G protein-coupled receptor 1b	Q8WXG9	692246.9	1.95E−03	CC
118	Keratin, type I	Q92764	47566.21	9.34E−04	TR
119	Secreted frizzled-related protein 3 precursor	Q92765	36230.29	5.24E−03	TR
120	Hypothetical protein FLJ32955	Q96LZ6	14450.25	1.39E−03	NT
121	Olfactory receptor 4K3	Q96R72	35354.45	7.73E−03	NT
122	Protein LRP16	Q9BQ69	35482.73	7.20E−04	NT
123	DNA-directed RNA polymerase III	Q9BUI4	60573.35	1.78E−03	CC
124	Glucose-6-phosphatase catalytic subunit 3	Q9BUM1	38709.14	9.22E−03	CC
125	Dynein intermediate chain 2	Q9GZS0	68807.61	8.69E−06	TR
126	Hypothetical protein DKFZp434F0116	Q9H0J7	53323.07	1.44E−03	NT
127	Presenilins associated rhomboid-like protein	Q9H300	42176.74	2.85E−03	CC
128	Hypothetical protein FLJ12973	Q9H967	69709.27	5.73E−03	TR
129	Sideroflexin-1	Q9H9B4	35465.31	1.82E−03	TR
130	Tumor necrosis factor receptor superfamily member 19 precursor	Q9NS68	45984.76	6.37E−04	CC
131	Protein C6orf72 precursor	Q9NU53	36817.27	6.18E−04	CC
132	Leucyl-tRNA synthetase	Q9P2J5	134379.5	8.03E−03	NT
133	Neurochondrin-1	Q9UBB6	78813.82	5.91E−03	CC
134	MAx-like protein X	Q9UH92	33279.74	4.11E−03	TR
135	Zinc finger transcription factor Trps1	Q9UHF7	141432.2	5.45E−03	CC
136	Wnt inhibitory factor 1 precursor	Q9Y5W5	41499.8	7.84E−05	CC
137	Mitotic spindle assembly checkpoint protein MAD1	Q9Y6D9	83015.71	4.43E−03	CC
138	Piccolo protein (Aczonin)	Q9Y6V0	566313.1	7.26E−03	CC

[0061]

TABLE 4

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
1	Serum albumin precursor	P02768	69321.63	1.00E−30	0541; 0535; 0560; 0556; 0567; 0571; 0552; 0578; 0549; 0574

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
2	Transthyretin precursor	P02766	15877.05	1.00E−30	0571; 0571; 0549; 0574; 0535; 0567; 0560; 0578; 0556; 0552
3	Serotransferrin precursor	P02787	76999.66	1.11E−15	0541; 0535; 0541; 0556; 0552; 0574; 0549; 0560; 0578; 0571
4	Alpha-1-antitrypsin precursor	P01009	46707.09	1.00E−30	0560; 0535; 0556; 0549; 0571; 0574; 0578; 0560; 0567; 0541
5	Alpha-1-acid glycoprotein 1 precursor	P02763	23496.77	5.14E−13	0535; 0535; 0549; 0578; 0556; 0552; 0560; 0574; 0541; 0567
6	Ig gamma-1 chain C region	P01857	36083.16	1.11E−15	0556; 0535; 0549; 0556; 0552; 0574; 0567; 0571; 0578; 0560
7	Clusterin precursor	P10909	52461.05	3.36E−13	0574; 0567; 0535; 0556; 0549; 0578; 0541; 0571; 0560; 0574
8	Ceruloplasmin precursor	P00450	122127.6	7.77E−15	0541; 0549; 0578; 0571; 0567; 0535; 0541; 0574; 0556; 0552
9	Pigment epithelium-derived factor precursor	P36955	46313.36	1.65E−13	0541; 0535; 0571; 0549; 0541; 0578; 0560; 0552; 0567; 0574
10	Apolipoprotein E precursor	P02649	36131.79	6.22E−14	0541; 0574; 0571; 0578; 0549; 0560; 0567; 0556; 0541; 0552
11	Complement C4-A precursor	P0C0L4	192649.5	1.52E−13	0556; 0535; 0556; 0549; 0541; 0571; 0560; 0567; 0552; 0578
12	Interphotoreceptor retinoid-binding protein precursor	P10745	135277.8	1.00E−30	0541; 0578; 0549; 0571; 0567; 0552; 0556; 0541; 0560
13	Cystatin C precursor	P01034	15789.08	4.43E−13	0567; 0560; 0567; 0571; 0574; 0552; 0556; 0541; 0535
14	Vitamin D-binding protein	Q6GTG1	52902.04	9.99E−15	0552; 0578; 0556; 0549; 0560; 0552; 0541; 0571; 0567; 0574
15	Plasma protease C1 inhibitor precursor	P05155	55119.49	1.28E−11	0567; 0541; 0535; 0571; 0549; 0567; 0574; 0578; 0552; 0560
16	Beta-2-microglobulin precursor	P61769	13705.91	1.11E−16	0556; 0560; 0535; 0552; 0556; 0574; 0567; 0549; 0578; 0571
17	Hemopexin precursor	P02790	51643.32	1.22E−14	0541; 0552; 0560; 0549; 0574; 0535; 0578; 0571; 0541
18	Alpha-2-macroglobulin precursor	P01023	163174.3	1.11E−15	0552; 0560; 0571; 0578; 0567; 0549; 0535; 0574; 0541; 0556
19	IGKC protein	Q502W4	25919.92	1.22E−14	0571; 0552; 0574; 0549; 0560; 0556; 0535; 0571; 0567
20	IGLC2 protein	Q567P1	24784.13	7.77E−14	0552; 0571; 0552; 0578; 0560; 0556; 0567; 0549; 0574; 0541

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
21	Osteopontin precursor	P10451	35401.25	2.22E−14	0541; 0549; 0556; 0571; 0578; 0552; 0574; 0567; 0560
22	Dickkopf-related protein 3 precursor	Q9UBP4	38266.07	1.11E−15	0567; 0535; 0578; 0541; 0556; 0567; 0549; 0574; 0560
23	Complement C3 precursor	P01024	187045.3	2.11E−14	0552; 0549; 0567; 0574; 0560; 0571; 0541; 0552; 0535; 0578
24	Alpha-1-antichymotrypsin precursor	P01011	47620.63	1.22E−14	0574; 0556; 0578; 0574; 0541; 0560; 0571; 0549; 0552
25	Prostaglandin-H2 D-isomerase precursor	P41222	21015.35	1.00E−30	0567; 0541; 0552; 0549; 0574; 0578; 0571; 0556
26	Alpha-1-acid glycoprotein 2 precursor	P19652	23587.64	3.33E−15	0552; 0535; 0549; 0578; 0552; 0556; 0571; 0574; 0560; 0567
27	EGF-containing fibulin-like extracellular matrix protein 1 precursor	Q12805	54604.29	3.44E−12	0541; 0541; 0549; 0571; 0567; 0560; 0535; 0574; 0578; 0556
28	Wnt inhibitory factor 1 precursor	Q9Y5W5	41499.8	7.44E−09	0567; 0578; 0560; 0567; 0535; 0541; 0549; 0552; 0556
29	Ig gamma-3 chain C region	P01860	32309.81	3.82E−10	0578; 0571; 0549; 0567; 0552; 0541; 0574; 0556; 0560
30	OTTHUMP00000018139 (Fragment)	Q5T2J8	97147.08	9.78E−05	0535; 0571; 0578; 0549; 0567; 0535; 0574; 0541; 0556; 0560
31	Glutathione peroxidase 3 precursor	P22352	25488.96	8.40E−13	0574; 0556; 0552; 0541; 0549; 0574; 0571; 0567; 0560
32	Apolipoprotein A-I precursor	P02647	30758.94	2.00E−14	0535; 0556; 0541; 0552; 0571; 0535; 0574; 0567; 0560
33	Opticin precursor (Oculoglycan)	Q9UBM4	37237.39	2.44E−14	0567; 0578; 0552; 0574; 0560; 0571; 0556; 0549; 0541
34	Amyloid-like protein 2 precursor	Q06481	86900.28	1.42E−11	0574; 0571; 0541; 0567; 0560; 0552; 0578
35	Gelsolin precursor	P06396	85644.25	1.00E−30	0567; 0556; 0549; 0567; 0571; 0574; 0578; 0541; 0560
36	Rho-GTPase-activating protein 26	Q9UNA1	92176.67	3.74E−04	0552; 0549; 0571; 0560; 0574; 0541; 0552; 0578; 0556
37	Glyceraldehyde-3-phosphate dehydrogenase	P04406	35899.36	2.10E−12	0560; 0549; 0578; 0556; 0574; 0552; 0571; 0541
38	Haptoglobin precursor	P00738	45176.59	5.90E−10	0556; 0552; 0549; 0541; 0535; 0567; 0560; 0578
39	Lysozyme C precursor	P61626	16526.29	1.00E−30	0571; 0552; 0560; 0574; 0541; 0549
40	Von Ebner's gland protein precursor	P31025	19237.81	5.66E−14	0571; 0574; 0560; 0552; 0549; 0578
41	Apolipoprotein A-II precursor	P02652	11167.9	1.66E−11	0574; 0552; 0556; 0535; 0541; 0560; 0567
42	Fibrinogen alpha chain precursor	P02671	94914.27	1.37E−12	0552; 0535; 0560; 0578; 0549; 0541; 0571
43	Haptoglobin-related protein precursor	P00739	38982.66	9.25E−10	0556; 0541; 0552; 0549; 0535; 0567

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
44	Angiotensinogen precursor	P01019	53120.61	2.27E−12	0556; 0552; 0571; 0560; 0541; 0567; 0574
45	Lysosomal trafficking regulator	Q99698	428865.6	8.85E−06	0574; 0578; 0567; 0560; 0556; 0541; 0571
46	Carboxypeptidase	P16870	53117.17	5.48E−12	0567; 0541; 0571; 0574; 0578; 0552
47	Hypothetical protein DKFZp686J11235	Q6MZW0	54424.95	4.37E−13	0571; 0552; 0578; 0535; 0574
48	Cathepsin D precursor	P07339	44523.66	8.15E−11	0552; 0556; 0549; 0560; 0571; 0552; 0578; 0574; 0567
49	AMBP protein precursor	P02760	38973.99	8.60E−10	0574; 0535; 0549; 0552; 0560; 0541; 0578; 0567
50	Complement factor B precursor	P00751	85478.58	1.75E−08	0549; 0567; 0552; 0541; 0556; 0535; 0560
51	Beta-2-glycoprotein I precursor	P02749	38272.67	3.44E−14	0549; 0535; 0556; 0541; 0552; 0571
52	Lactotransferrin precursor	P02788	78288.08	6.66E−15	0571; 0552; 0560; 0574; 0541
53	Prolactin-inducible protein precursor	P12273	16561.8	3.17E−12	0560; 0552; 0571; 0574
54	Neogenin precursor	Q92859	159859.3	3.55E−03	0578; 0541; 0578; 0549; 0571; 0560; 0556; 0552; 0574
55	Alpha-actinin 3	Q08043	103229.2	9.07E−04	0571; 0541; 0560; 0567; 0574; 0535; 0556; 0578
56	Beta crystallin B2	P43320	23234.38	3.11E−14	0549; 0574; 0541; 0556; 0560; 0535
57	Hemoglobin delta subunit	P02042	15914.25	3.89E−14	0552; 0578; 0535; 0560; 0571
58	Plasma retinol-binding protein precursor	P02753	22995.26	9.33E−14	0549; 0560; 0574; 0567; 0552; 0556; 0535; 0549; 0571
59	Centrosomal protein of 110 kDa	O43303	113370.6	1.18E−03	0541; 0556; 0574; 0567; 0552; 0578; 0560
60	Creatine kinase B-type	P12277	42617.37	2.00E−14	0560; 0578; 0552; 0556; 0574; 0571
61	Hypothetical protein	Q569I7	20655.36	3.33E−13	0535; 0552; 0578; 0556; 0571; 0574
62	Polymeric-immunoglobulin receptor precursor	P01833	83261.7	8.66E−14	0571; 0552; 0578; 0574
63	Epididymal secretory protein E1 precursor	P61916	16559.49	3.80E−11	0578; 0574; 0560; 0567; 0556; 0552; 0571; 0535; 0549
64	Tumor-associated hydroquinone oxidase	Q16206	70037.12	1.03E−03	0578; 0552; 0574; 0567; 0549; 0560; 0556; 0578; 0535
65	Hypothetical protein (Fragment)	Q96BI9	12421.42	2.11E−03	0567; 0578; 0560; 0541; 0574; 0549; 0552; 0556
66	Hypothetical protein DKFZp686I04196 (Fragment)	Q6N093	46031.66	1.19E−10	0535; 0578; 0552; 0556; 0567; 0571
67	Type III iodothyronine deiodinas	P55073	31383.73	1.23E−05	0571; 0541; 0567; 0560; 0578
68	Beta-globin gene from a thalassemia patient	Q14473	18918.59	1.32E−13	0552; 0560; 0578; 0571
69	Hypothetical protein FLJ38687	Q8N8Z1	16623.52	1.19E−03	0541; 0574; 0535; 0571; 0556; 0578; 0552; 0560
70	Complement factor I precursor	P05156	65676.66	5.73E−09	0552; 0541; 0574; 0571; 0567; 0556; 0560
71	Hypothetical protein	Q6PHR9	9188.304	8.51E−04	0574; 0552; 0535; 0571; 0578; 0556; 0541

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
72	Alpha-enolase	P06733	47008.33	1.00E−30	0574; 0560; 0571; 0578; 0567; 0549
73	DEAH (Asp-Glu-Ala-His) box polypeptide 29	Q7Z478	155178.3	2.50E−03	0578; 0552; 0567; 0556; 0571; 0560
74	PH domain containing protein	Q8TD55	53317.19	2.16E−04	0560; 0556; 0541; 0574; 0571; 0567
75	Phosphoglycerate kinase 1	P00558	44455.11	4.93E−12	0560; 0578; 0556; 0541
76	GTP:AMP phosphotransferase mitochondrial	Q9UIJ7	25418.51	1.22E−03	0578; 0556; 0567; 0552; 0571; 0560; 0541
77	Hypothetical protein FLJ42076	Q6ZVU4	21036.72	4.61E−04	0535; 0567; 0571; 0560; 0552; 0574
78	Antithrombin III variant	Q7KZ97	52657.96	8.82E−11	0556; 0552; 0541; 0535; 0574; 0560
79	Hypothetical protein FLJ32091	Q96MP4	81413.94	1.13E−03	0578; 0549; 0552; 0535; 0574; 0541
80	WUGSC:H_2G3A.1 protein	Q99993	60051.64	1.27E−04	0552; 0574; 0571; 0567; 0560; 0541
81	Triosephosphate isomerase	P60174	26521.7	2.90E−10	0560; 0578; 0556
82	Phosphatidylethanolamine-binding protein	P30086	20912.63	5.71E−10	0578; 0560; 0552
83	Arginyl-tRNA synthetase	P54136	75330.97	1.61E−03	0541; 0578; 0556; 0574; 0560; 0567; 0571; 0549
84	Tripeptidyl-peptidase I precursor	O14773	61190.67	1.00E−30	0541; 0567; 0552; 0560; 0556; 0571; 0574
85	FNBP1 protein (Fragment)	Q6P658	40759.38	6.47E−04	0535; 0556; 0567; 0549; 0578; 0574; 0560
86	Hypothetical protein FLJ25756	Q8N7D8	47133.98	2.79E−04	0560; 0556; 0535; 0541; 0578; 0571; 0567
87	Alpha-1B-glycoprotein precursor	P04217	54238.7	6.66E−15	0552; 0549; 0535; 0541; 0574; 0567
88	Kininogen-1 precursor	P01042	71900.1	3.68E−06	0541; 0535; 0552; 0574; 0556; 0567
89	Amyloid-like protein 1 precursor	P51693	72131.33	7.51E−08	0552; 0560; 0567; 0574; 0541; 0571
90	Zinc-alpha-2-glycoprotein precursor	P25311	33850.91	4.58E−12	0552; 0571; 0541; 0574; 0560
91	Apolipoprotein A-IV precursor	P06727	45343.52	2.91E−13	0535; 0541; 0560; 0556; 0552
92	Hypothetical protein FLJ45254	Q6ZSR8	115180.5	7.91E−04	0556; 0535; 0567; 0578; 0560
93	SERPINC1 protein	Q8TCE1	29073.79	8.37E−06	0556; 0549; 0541; 0535; 0574
94	Pyruvate kinase, isozymes M1/M2	P14618	57769.12	1.57E−11	0560; 0578; 0556
95	Fibrinogen gamma chain precursor	P02679	51478.88	1.55E−11	0552; 0535
96	MAx-like protein X	Q9UH92	33279.74	2.09E−03	0556; 0535; 0549; 0578; 0574; 0552; 0541
97	Amyloid beta A4 protein precursor	P05067	86888.16	6.25E−08	0541; 0567; 0571; 0574; 0549
98	Ribonuclease pancreatic precursor	P07998	17632.68	7.40E−12	0567; 0560; 0552; 0541; 0574
99	Ectonucleotide pyrophosphatase/phosphodiesterase 2	Q13822	98939.61	1.11E−15	0552; 0567; 0578; 0571; 0574
100	Novel protein (Fragment)	Q5T2T0	35987.71	3.87E−03	0571; 0541; 0578; 0549; 0567
101	Hypothetical protein FLJ22582	Q9H661	25812.05	1.82E−03	0560; 0578; 0571; 0556; 0567
102	Collagen alpha 1(II) chain precursor	P02458	134410.6	7.90E−06	0556; 0578; 0552; 0574
103	CRBS_HUMAN (P22914) Beta crystallin S (Gamma crystallin S)	P22914	20861.95	1.11E−14	0549; 0574; 0578
104	ARRS_HUMAN (P10523) S-arrestin (Retinal S-antigen) (48 kDa protein) (S-AG) (Rod photoreceptor arres	P10523	45063.49	1.07E−10	0578; 0560; 0574
105	H4_HUMAN (P62805) Histone H4	P62805	11229.34	1.03E−09	0560; 0578; 0574
106	Q4ZG55 (Q4ZG55) Hypothetical protein GREB1	Q4ZG55	216328.6	4.35E−04	0560; 0552; 0574
107	Q53F97 (Q53F97) Alpha 2 globin variant (Fragment)	Q53F97	15270.94	2.22E−16	0552; 0560
108	FIBB_HUMAN (P02675) Fibrinogen beta chain precursor [Contains: Fibrinopeptide B]	P02675	55892.23	1.90E−12	0552; 0535

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
109	ENOG_HUMAN (P09104) Gamma-enolase (EC 4.2.1.11) (2-phospho-D-glycerate hydro-lyase) (Neural enolase	P09104	47108.02	6.67E−11	0578; 0560
110	O43308 (O43308) KIAA0425 protein (Fragment)	O43308	141056.5	2.24E−04	0541; 0578; 0549; 0560; 0556; 0552; 0574
111	NU214_HUMAN (P35658) Nuclear pore complex protein Nup214 (Nucleoporin Nup214) (214 kDa nucleoporin)	P35658	213632.8	4.87E−05	0549; 0578; 0541; 0556; 0552; 0535; 0571
112	Q86UQ8 (Q86UQ8) Transcription factor NF-E4	Q86UQ8	19006.73	1.03E−04	0574; 0549; 0541; 0535; 0560; 0552; 0556
113	Q8N8R5 (Q8N8R5) Hypothetical protein FLJ38973	Q8N8R5	43420.63	3.35E−03	0567; 0560; 0571; 0574; 0549; 0578; 0556
114	Q58A63 (Q58A63) BNIP2 motif containing molecule at the carboxyl tarminal region 1	Q58A63	298881.4	4.28E−04	0571; 0556; 0552; 0560; 0574; 0535
115	PCLO_HUMAN (Q9Y6V0) Piccolo protein (Aczonin)	Q9Y6V0	566313.1	6.19E−06	0567; 0541; 0571; 0535; 0552; 0556
116	B3GN6_HUMAN (O43505) N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase (EC 2.4.1.149)	Q43505	47088.94	1.31E−08	0567; 0574; 0541; 0571; 0552
117	CSTN1_HUMAN (O94985) Calsyntenin-1 precursor	O94985	109723.7	2.63E−08	0578; 0574; 0552; 0567; 0541
118	Q7Z4H7 (Q7Z4H7) Hypothetical protein	Q7Z4H7	108566.8	9.15E−04	0571; 0560; 0578; 0556; 0567
119	OSR1_HUMAN (Q9BXW6) Oxysterol binding protein-related protein 1 (OSBP-related protein 1) (ORP-1)	Q9BXW6	108401.1	5.02E−03	0560; 0535; 0574; 0552; 0556
120	GSCR1_HUMAN (Q9NZM4) Glioma tumor suppressor candidate region gene 1 protein	Q9NZM4	152898.4	2.21E−04	0560; 0571; 0541; 0535; 0578
121	COPG2_HUMAN (Q9UBF2) Coatomer gamma-2 subunit (Gamma-2 coat protein) (Gamma-2 COP)	Q9UBF2	97559.69	4.15E−04	0535; 0571; 0549; 0578; 0567
122	ACTA_HUMAN (P62736) Actin, aortic smooth muscle (Alpha-actin-2)	P62736	41981.82	1.58E−10	0552; 0560; 0574; 0578
123	SAA_HUMAN (P02735) Serum amyloid A protein precursor (SAA) [Contains: Amyloid protein A (Amyloid f?	P02735	13523.52	9.99E−15	0552; 0535; 0556
124	CRYAA_HUMAN (P02489) Alpha crystallin A chain (Heat-shock porotein beta-4) (HspB4)	P02489	19896.9	8.88E−15	0549; 0574
125	ACADV_HUMAN (P49748) Acyl-CoA dehydrogenase, very-long-chain specific, mitochondrial precursor (EC	P49748	70345.54	8.15E−04	0560; 0541; 0571; 0574; 0567; 0556
126	A2GL_HUMAN (P02750) Leucine-rich alpha-2-glycoprotein precursor (LRG)	P02750	38154.13	3.33E−15	0552; 0549; 0535; 0541; 0571
127	SPAG6_HUMAN (O75602) Sperm-associated antigen 6 (PF16 protein homolog) (Sperm flagellar protein) (R	O75602	55441.33	1.26E−06	0578; 0552; 0571; 0574; 0560
128	BTD_HUMAN (P43251) Biotinidase precursor (EC 3.5.1.12)	P43251	58875.13	1.65E−07	0567; 0571; 0574; 0578; 0552
129	Q8WVN8 (Q8WVN8) Hypothetical protein LOC92912 (Hypothetical protein DKFZp762C143)	Q8WVN8	42791.48	7.75E−04	0549; 0541; 0556; 0552; 0571
130	SPRL1_HUMAN (Q14515) SPARC-like protein 1 precursor (High endothelial venule protein) (Hevin) (MAST	Q14515	75169.27	5.28E−08	0541; 0578; 0571; 0552
131	Q86UZ9 (Q86UZ9) Signal peptide, CUB domain, EGF-like 3	Q86UZ9	109092.9	2.40E−04	0541; 0578; 0567; 0549
132	MYOC_HUMAN (Q99972) Myocilin precursor (Trabecular meshwork-induced glucocorticoid response protein	Q99972	56936.61	2.34E−07	0578; 0567; 0560; 0541
133	Q9H6T0 (Q9H6T0) Hypothetical protein FLJ21918	Q9H6T0	78351.28	2.37E−03	0574; 0560; 0571; 0567
134	Q9Y6R7 (Q9Y6R7) Fc gamma BP (Fragment)	Q9Y6R7	301606.7	5.53E−08	0556; 0541; 0574
135	MT1E_HUMAN (P04732) Metallothionein-1E (MT-1E) (Metallothionein-IE) (MT-IE)	P04732	6009.202	1.00E−08	0560; 0571; 0552
136	CRYAB_HUMAN (P02511) Alpha crystallin B chain (Alpha(B)-crystallin) (Rosenthal fiber component) (He	P02511	20146.43	4.88E−12	0549; 0574
137	Q59EM9 (Q59EM9) Ubiquitin C variant (Fragment)	Q59EM9	147245	3.85E−06	0578; 0560
138	SVIL_HUMAN (O95425) Supervillin (Archvillin) (p205/p250)	O95425	247550.6	9.46E−04	0549; 0535; 0571; 0560; 0552
139	IBP6_HUMAN (P24592) Insulin-like growth factor binding protein 6 precursor (IGFBP-6) (IBP-6) (IGF-b	P24592	25306.17	1.11E−06	0567; 0578; 0574; 0571; 0560
140	K0179_HUMAN (Q14684) Protein KIAA0179	Q14684	84359.22	6.11E−04	0571; 0574; 0560; 0578; 0552
141	Q9BSG5 (Q9BSG5) Retbindin	Q9BSG5	28145.91	4.76E−07	0541; 0574; 0567; 0578; 0552
142	LUM_HUMAN (P51884) Lumican precursor (Keratan sulfate proteoglycan lumican) (KSPG lumican)	P51884	38404.8	2.97E−06	0535; 0556; 0578; 0552
143	CO9A2_HUMAN (Q14055) Collagen alpha 2(IX) chain precursor	Q14055	65090.96	3.06E−06	0578; 0567; 0574; 0541

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
144	GRB14_HUMAN (Q14449) Growth factor receptor-bound protein 14 (GRB14 adapter protein)	Q14449	60949.65	2.36E−03	0556; 0574; 0541; 0535
145	Q5VV79 (Q5VV79) SNF2 histone linker PHD RING helicase	Q5VV79	192955.8	1.00E−03	0560; 0571; 0567; 0552
146	Q8NDD1 (Q8NDD1) Hypothetical protein DKFZp547B1713	Q8NDD1	32732.49	2.07E−03	0560; 0535; 0574; 0549
147	CPSF3_HUMAN (Q9UKF6) Cleavage and polyadenylation specificity factor, 73 kDa subunit (CPSF 73 kDa s	Q9UKF6	77436.22	3.07E−04	0578; 0552; 0574; 0541
148	H2AA_HUMAN (P28001) Histone H2A.a (H2A/a) (H2A.2)	P28001	13995.91	3.39E−11	0560; 0574; 0552
149	PROL4_HUMAN (Q16378) Proline-rich protein 4 precursor (Lacrimal proline-rich protein) (Nasopharynge	Q16378	15087.6	3.75E−11	0549; 0552; 0574
150	LACRT_HUMAN (Q9GZZ8) Extracellular glycoprotein lacritin precursor	Q9GZZ8	14237.34	2.99E−04	0552; 0560; 0574
151	CELR1_HUMAN (Q9NYQ6) Cadherin EGF LAG seven-pass G-type receptor 1 precursor (Flamingo homolog 2) (	Q9NYQ6	329276.7	2.03E−04	0556; 0578; 0535
152	CRBB1_HUMAN (P53674) Beta crystallin B1	P53674	27874.85	4.88E−14	0549; 0574
153	CRBA4_HUMAN (P53673) Beta crystallin A4 (Beta-A4-crystallin)	P53673	22228.56	1.00E−30	0549; 0574
154	VIME_HUMAN (P08670) Vimentin	P08670	53488.13	4.45E−09	0560; 0574
155	1433G_HUMAN (P61981) 14-3-3 protein gamma (Protein kinase C inhibitor protein 1) (KCIP-1)	P61981	28153.87	1.62E−11	0578; 0560
156	Q9P2D3 (Q9P2D3) KIAA1414 protein (Fragment)	Q9P2D3	171852.9	5.07E−03	0535; 0560; 0556; 0578; 0552
157	Q86VP1 (Q86VP1) Tax1 (Human T-cell leukemia virus type I) binding protein 1	Q86VP1	90819.88	5.39E−04	0549; 0556; 0574; 0578
158	PLMN_HUMAN (P00747) Plasminogen precursor (EC 3.4.21.7) [Contains: Plasmin heavy chain A; Activatio	P00747	90510.23	2.03E−05	0552; 0541; 0535; 0556
159	PDE6A_HUMAN (P16499) Rod cGMP-specific 3',5'-cyclic phosphodiesterase alpha-subunit (EC 3.1.4.35)	P16499	99438.76	1.80E−03	0567; 0571; 0556; 0574
160	RHG25_HUMAN (P42331) Rho-GTPase-activating protein 25	P42331	72385.19	1.85E−03	0535; 0556; 0560; 0541
161	RBP2_HUMAN (P49792) Ran-binding protein 2 (RanBP2) (Nuclear pore complex protein Nup358) (Nucleopor	P49792	357991.4	3.05E−04	0567; 0552; 0571; 0560
162	Q6P988 (Q6P988) Hypothetical protein LOC147111	Q6P988	48570.99	3.74E−04	0571; 0541; 0556; 0567
163	Q6ZTG8 (Q6ZTG8) Hypothetical protein FLJ44670	Q6ZTG8	115755	1.14E−04	0560; 0578; 0556; 0574
164	Q7Z5K1 (Q7Z5K1) Leukocyte-derived arginine aminopeptidase long form variant	Q7Z5K1	110377.1	1.04E−03	0571; 0567; 0578; 0574
165	Q8N401 (Q8N401) KIAA1632 protein	Q8N401	52340.19	5.40E−04	0574; 0556; 0552; 0541
166	NR4A3_HUMAN (Q92570) Orphan nuclear receptor NR4A3 (Nuclear hormone receptor NOR-1) (Neuron-derived	Q92570	68156.35	5.88E−04	0535; 0578; 0571; 0556
167	RT17_HUMAN (Q9Y2R5) 28S ribosomal protein S17, mitochondrial precursor (S17mt) (MRP-S17)	Q9Y2R5	14492.93	1.18E−03	0535; 0552; 0578; 0549
168	FA5_HUMAN (P12259) Coagulation factor V precursor (Activated protein C cofactor) [Contains: Coagula	P12259	251511.8	1.05E−04	0552; 0571; 0556
169	TBA1_HUMAN (P68366) Tubulin alpha-1 chain (Alpha-tubulin 1) (Testis-specific alpha-tubulin) (Tubuli	P68366	49892.41	3.40E−09	0560; 0574; 0578
170	Q5T714 (Q5T714) Ash1 (Absent, small, or homeotic)-like (*Drosophila*)	Q5T714	332580	2.25E−05	0556; 0560; 0535
171	LDH6A_HUMAN (Q6ZMR3) L-lactate dehydrogenase A-like 6A (EC 1.1.1.27)	Q6ZMR3	36484.2	1.30E−09	0578; 0560; 0556
172	Q86TT2 (Q86TT2) Full-length cDNA clone CS0DI019YF20 of Placenta of *Homo sapiens* (human) (Fragment)	Q86TT2	39100.3	1.08E−10	0578; 0556; 0574
173	Q86YR7 (Q86YR7) Rho family guanine-nucleotide exchange factor	Q86YR7	117435.9	1.92E−03	0541; 0571; 0549
174	Q8N7W7 (Q8N7W7) Hypothetical protein FLJ40259	Q8N7W7	66086.88	1.46E−03	0552; 0541; 0574
175	RLP24_HUMAN (Q9UHA3) Probable ribosome biogenesis protein RLP24 (Ribosomal protein L24-like)	Q9UHA3	19608.34	6.29E−04	0567; 0578; 0574
176	IGJ_HUMAN (P01591) Immunoglobulin J chain	P01591	15584.55	1.13E−06	0571; 0552
177	CRBA1_HUMAN (P05813) Beta crystallin A3 [Contains: Beta crystallin A1]	P05813	25133.82	3.33E−15	0549
178	CRGC_HUMAN (P07315) Gamma crystallin C (Gamma crystallin 2-1) (Gamma crystallin 3)	P07315	20733.98	8.54E−12	0549
179	CRGD_HUMAN (P07320) Gamma crystallin D (Gamma crystallin 4)	P07320	20593.8	1.11E−15	0549
180	FABPL_HUMAN (P07148) Fatty acid-binding protein, liver (L-FABP)	P07148	14199.41	3.54E−06	0560
181	THRB_HUMAN (P00734) Prothrombin precursor (EC 3.4.21.5) (Coagulation factor II) [Contains: Activati	P00734	69992.2	5.83E−10	0549; 0535; 0541; 0552
182	A2AP_HUMAN (P08697) Alpha-2-antiplasmin precursor (Alpha-2-plasmin inhibitor) (Alpha-2-PI) (Alpha-2	P08697	54531.18	1.53E−11	0556; 0574; 0541; 0552
183	LG3BP_HUMAN (Q08380) Galectin-3 binding protein precursor (Lectin galactoside-binding soluble 3 bin	Q08380	65289.4	4.45E−09	0560; 0541; 0567; 0578
184	TIC1_HUMAN (Q08629) Testican-1 precursor (SPOCK protein)	Q08629	49092.49	7.92E−06	0567; 0541; 0574; 0560

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
185	GOGA4_HUMAN (Q13439) Golgi autoantigen, golgin subfamily A member 4 (Trans-Golgi p230) (256 kDa gol	Q13439	260978.6	5.90E−04	0578; 0567; 0556; 0552
186	UBP26_HUMAN (Q9BXU7) Ubiquitin carboxyl-terminal hydrolase 26 (EC 3.1.2.15) (Ubiquitin thiolesteras	Q9BXU7	103981.2	1.44E−04	0567; 0571; 0556; 0535
187	MYG_HUMAN (P02144) Myoglobin	P02144	17041.91	5.67E−11	0535; 0578; 0560
188	CH3L1_HUMAN (P36222) Chitinase-3-like protein 1 precursor (Cartilage glycoprotein 39) (GP-39) (39 k	P36222	42586.39	1.70E−06	0560; 0556; 0574
189	SEM7A_HUMAN (O75326) Semaphorin-7A precursor (Semaphorin L) (Sema L) (Semaphorin K1) (Sema K1) (Joh	O75326	74776.28	3.11E−07	0574; 0541; 0571
190	NCTR1_HUMAN (O76036) Natural cytotoxicity triggering receptor 1 precursor (Natural killer cell p46-	O76036	34458.41	1.63E−03	0578; 0560; 0535
191	FETUA_HUMAN (P02765) Alpha-2-HS-glycoprotein precursor (Fetuin-A) (Alpha-2-Z-globulin) (Ba-alpha-2-	P02765	39299.73	1.82E−06	0535; 0541; 0571
192	HRG_HUMAN (P04196) Histidine-rich glycoprotein precursor (Histidine-proline-rich glycoprotein) (HPR	P04196	59540.94	3.64E−06	0549; 0535; 0556
193	GSTP1_HUMAN (P09211) Glutathione S-transferase P (EC 2.5.1.18) (GST class-pi) (GSTP1-1)	P09211	23209.98	4.06E−11	0578; 0552; 0571
194	CDK6_HUMAN (Q00534) Cell division protein kinase 6 (EC 2.7.1.37) (Serine/threonine-protein kinase P	Q00534	36915.05	2.90E−03	0552; 0578; 0571
195	VAS1_HUMAN (Q15904) Vacuolar ATP synthase subunit S1 precursor (EC 3.6.3.14) (V-ATPase S1 subunit)	Q15904	51992.65	2.50E−10	0574; 0541; 0578
196	IBP7_HUMAN (Q16270) Insulin-like growth factor binding protein 7 precursor (IGFBP-7) (IBP-7) (IGF-b	Q16270	29111.45	3.67E−06	0560; 0549; 0578
197	Q5CZ94 (Q5CZ94) Hypothetical protein DKFZp781M0386	Q5CZ94	24986.3	7.58E−06	0535; 0571; 0567
198	Q6ZMC8 (Q6ZMC8) Hypothetical protein FLJ23997	Q6ZMC8	49902.74	5.55E−04	0556; 0567; 0560
199	Q6ZRY1 (Q6ZRY1) Hypothetical protein FLJ45988	Q6ZRY1	40475.38	4.15E−03	0535; 0552; 0578
200	Q8N9C3 (Q8N9C3) Hypothetical protein FLJ37770	Q8N9C3	24197.5	1.73E−03	0571; 0556; 0535
201	Q8NHQ3 (Q8NHQ3) RBBP8 protein	Q8NHQ3	102594.6	3.62E−04	0567; 0560
202	SPON1_HUMAN (Q9HCB6) Spondin-1 precursor (F-spondin) (Vascular smooth muscle cell growth promoting	Q9HCB6	90913.51	8.16E−11	0541; 0574
203	Q9UGL1 (Q9UGL1) RB-binding protein	Q9UGL1	189996.1	4.41E−03	0549; 0535
204	G3P1_HUMAN (P00354) Glyceraldehyde-3-phosphate dehydrogenase, muscle (EC 1.2.1.12) (GAPDH)	P00354	35853.31	1.56E−07	0578; 0552
205	1433B_HUMAN (P31946) 14-3-3 protein beta/alpha (Protein kinase C inhibitor protein 1) (KCIP-1) (Pro	P31946	27933.79	4.35E−11	0578; 0560
206	DEF1_HUMAN (P59665) Neutrophil defensin 1 precursor (HNP-1) (HP-1) (HP1) (Defensin, alpha 1) [Conta	P59665	10194.18	7.54E−06	0578; 0552
207	TBA2_HUMAN (Q13748) Tubulin alpha-2 chain (Alpha-tubulin 2)	Q13748	49927.65	1.13E−10	0560; 0578
208	Q6MZX7 (Q6MZX7) Hypothetical protein DKFZp686M24218	Q6MZX7	52387.13	3.84E−09	0535; 0567
209	Q6PI81 (Q6PI81) IGHM protein	Q6PI81	52633.13	6.49E−08	0571; 0556
210	Q7Z5B4 (Q7Z5B4) RIC3	Q7Z5B4	41066.16	3.61E−03	0541; 0571
211	Q7Z745 (Q7Z745) Hypothetical protein FLJ40243	Q7Z745	180566.4	1.42E−03	0578; 0556
212	PARK7_HUMAN (Q99497) DJ-1 protein (Oncogene DJ1)	Q99497	19878.49	4.50E−13	0560; 0549
213	BFSP1_HUMAN (Q12934) Filensin (Beaded filament structural protein 1) (Lens fiber cell beaded-filame	Q12934	74499.29	1.47E−10	0549
214	BFSP2_HUMAN (Q13515) Phakinin (Beaded filament structural protein 2) (Lens fiber cell beaded filame	Q13515	45851.28	1.45E−11	0549
215	K1C9_HUMAN (P35527) Keratin, type I cytoskeletal 9 (Cytokeratin-9) (CK-9) (Keratin-9) (K9)	P35527	62091.76	1.11E−16	0574
216	Q6PJ95 (Q6PJ95) IGHG1 protein	Q6PJ95	60064.1	1.16E−05	0556
217	Q86VJ1 (Q86VJ1) E3 ligase for inhibin receptor	Q86VJ1	289427.4	1.25E−03	0571
218	SELH_HUMAN (Q8IZQ5) Selenoprotein H	Q8IZQ5	13398.19	8.21E−03	0552
219	CSPG2_HUMAN (P13611) Versican core protein precursor (Large fibroblast proteoglycan) (Chondroitin s	P13611	372589	1.50E−11	0571; 0574; 0567
220	PDZK3_HUMAN (O15018) PDZ domain containing protein 3 (PDZ domain containing protein 2) (Activated i	O15018	301423.4	1.38E−04	0560; 0541; 0578
221	XLRS1_HUMAN (O15537) Retinoschisin precursor (X-linked juvenile retinoschisis protein)	O15537	25575.54	2.10E−09	0541; 0567; 0552
222	DEPD5_HUMAN (O75140) DEP domain containing protein 5	O75140	177796	2.96E−03	0574; 0567; 0552
223	O95978 (O95978) VH1 protein precursor (Fragment)	O95978	17292.5	3.63E−08	0552; 0556; 0560
224	HV3S_HUMAN (P01780) Ig heavy chain V-III region JON	P01780	12555.34	9.51E−07	0556; 0535; 0578
225	CFAH_HUMAN (P08603) Complement factor H precursor (H factor 1)	P08603	139033.4	2.48E−06	0552; 0535; 0541
226	NEC2_HUMAN (P16519) Neuroendocrine convertase 2 precursor (EC 3.4.21.94) (NEC 2) (PC2) (Prohormone	P16519	70520.62	1.43E−08	0571; 0560; 0567
227	3BP2_HUMAN (P78314) SH3 domain-binding protein 2 (3BP-2)	P78314	62204.26	1.58E−03	0578; 0567; 0552
228	TF3C1_HUMAN (Q12789) General transcription factor 3C polypeptide 1 (Transcription factor IIIC-alpha	Q12789	238143.4	5.36E−04	0574; 0578; 0552
229	NAF1_HUMAN (Q15025) Nef-associated factor 1 (Naf1) (TNFAIP3-interacting protein 1) (HIV-1 Nef inter	Q15025	71819.7	2.15E−04	0567; 0560; 0578
230	Q4VBZ9 (Q4VBZ9) MORC family CW-type zinc finger 3	Q4VBZ9	106973.1	2.29E−03	0578; 0541; 0560
231	Q5BLQ2 (Q5BLQ2) Mucin	Q5BLQ2	289658.2	4.49E−03	0567; 0578; 0541
232	Q5FWF9 (Q5FWF9) Hypothetical protein	Q5FWF9	24779.14	1.83E−04	0535; 0578; 0567

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
233	Q5HY96 (Q5HY96) Hypothetical protein DKFZp686C0394	Q5HY96	173231.1	2.82E-03	0552; 0574; 0578
234	Q5JPH6 (Q5JPH6) Hypothetical protein DKFZp686C2322	Q5JPH6	58621.73	7.27E-04	0560; 0578; 0574
235	Q5VVM6 (Q5VVM6) Novel protein	Q5VVM6	91277.53	7.22E-04	0552; 0574; 0571
236	Q5VWH1 (Q5VWH1) Tumor necrosis factor (Ligand) superfamily, member 15	Q5VWH1	20099.21	1.82E-03	0556; 0541; 0552
237	Q6ZND7 (Q6ZND7) Hypothetical protein FLJ16192	Q6ZND7	58888.55	1.49E-03	0567; 0574; 0541
238	Q6ZRF7 (Q6ZRF7) Hypothetical protein FLJ46385	Q6ZRF7	15503.12	3.05E-03	0535; 0574; 0560
239	Q70EX7 (Q70EX7) Sodium-dependent organic anion transporter	Q70EX7	41231.12	1.26E-03	0541; 0567; 0574
240	Q8N264 (Q8N264) Hypothetical protein FLJ33877	Q8N264	84143.33	2.16E-03	0541; 0560; 0552
241	ASM3B_HUMAN (Q92485) Acid sphingomyelinase-like phosphodiesterase 3b precursor (EC 3.1.4.—) (ASM-li	Q92485	50781.24	3.66E-03	0541; 0567; 0535
242	Q96C45 (Q96C45) ULK4 protein	Q96C45	64932.5	2.43E-04	0549; 0560; 0535
243	CYH2_HUMAN (Q99418) Cytohesin-2 (ARF nucleotide-binding site opener) (ARNO protein) (ARF exchange f	Q99418	46516.66	1.09E-03	0567; 0549; 0574
244	Q9BRD0 (Q9BRD0) Hypothetical protein MGC13125	Q9BRD0	70478.38	7.79E-04	0574; 0552; 0578
245	Q9HCE0 (Q9HCE0) KIAA1632 protein (Fragment)	Q9HCE0	165103.1	2.18E-03	0567; 0541; 0556
246	UBN1_HUMAN (Q9NPG3) Ubinuclein (Ubiquitously expressed nuclear protein) (VT4)	Q9NPG3	121466.2	7.43E-03	0541; 0552; 0560
247	E41LB_HUMAN (Q9Y2J2) Band 4.1-like protein 3 (4.1B) (Differentially expressed in adenocarcinoma of	Q9Y2J2	120603.1	3.21E-03	0541; 0571; 0574
248	KV3B_HUMAN (P01620) Ig kappa chain V-III region SIE	P01620	11767.85	4.57E-10	0556; 0571
249	CO9_HUMAN (P02748) Complement component C9 precursor [Contains: Complement component C9a; Complemen	P02748	63132.78	9.29E-06	0541; 0535
250	SAP_HUMAN (P07602) Proactivator polypeptide precursor [Contains: Saposin A (Protein A); Saposin B-V	P07602	58073.93	2.11E-04	0574; 0578
251	CBG_HUMAN (P08185) Corticosteroid-binding globulin precursor (CBG) (Transcortin)	P08185	45111.96	7.29E-10	0574; 0560
252	CD14_HUMAN (P08571) Monocyte differentiation antigen CD14 precursor (Myeloid cell-specific leucine-	P08571	40050.79	2.39E-06	0541; 0571
253	AATC_HUMAN (P17174) Aspartate aminotransferase, cytoplasmic (EC 2.6.1.1) (Transaminase A) (Glutamat	P17174	46087.54	4.52E-06	0560; 0567
254	PGAM1_HUMAN (P18669) Phosphoglycerate mutase 1 (EC 5.4.2.1) (EC 5.4.2.4) (EC 3.1.3.13) (Phosphoglyc	P18669	28654.81	2.23E-05	0560; 0552
255	NEBU_HUMAN (P20929) Nebulin	P20929	772742.8	1.73E-03	0552; 0571
256	ROA2_HUMAN (P22626) Heterogeneous nuclear ribonucleoproteins A2/B1 (hnRNP A2/hnRNP B1)	P22626	37406.69	5.25E-07	0578; 0560
257	1433Z_HUMAN (P63104) 14-3-3 protein zeta/delta (Protein kinase C inhibitor protein 1) (KCIP-1)	P63104	27727.73	1.85E-09	0560; 0571
258	H33_HUMAN (P84243) Histone H3.3	P84243	15187.46	3.60E-08	0560; 0574
259	Q495S9 (Q495S9) Zinc finger protein 560	Q495S9	91061.62	4.01E-03	0556; 0535
260	Q5DP47 (Q5DP47) Tandem-pore-domain potassium channel TREK-1 splice variant e	Q5DP47	24666.08	1.46E-03	0560; 0578
261	Q6IA31 (Q6IA31) FLJ14154 protein	Q6IA31	27415.97	4.63E-05	0549; 0571
262	K0859_HUMAN (Q8N6R0) Protein KIAA0859	Q8N6R0	78717.7	1.45E-04	0571; 0578
263	DDHD1_HUMAN (Q8NEL9) Probable phospholipase DDHD1 (EC 3.1.1.—) (DDHD domain protein 1) (Phosphatidi	Q8NEL9	100372.4	3.71E-04	0560; 0552
264	Q8TCU4 (Q8TCU4) ALMS1 protein	Q8TCU4	460906.3	1.73E-03	0560; 0571
265	NRCAM_HUMAN (Q92823) Neuronal cell adhesion molecule precursor (Nr-CAM) (NgCAM-related cell adhesio	Q92823	143803.8	2.93E-07	0541; 0574
266	PROL1_HUMAN (Q99935) Proline-rich protein 1 precursor (PRL1) (Basic proline-rich lacrimal protein)	Q99935	22856.06	6.78E-10	0552
267	APOB_HUMAN (P04114) Apolipoprotein B-100 precursor (Apo B-100) [Contains: Apolipoprotein B-48 (Apo	P04114	515241.6	1.39E-09	0552
268	ENO1B_HUMAN (Q05524) Alpha-enolase, lung specific (EC 4.2.1.11) (2-phospho-D-glycerate hydro-lyase)	Q05524	49446.36	2.35E-04	0560
269	K1C13_HUMAN (P13646) Keratin, type I cytoskeletal 13 (Cytokeratin-13) (CK-13) (Keratin-13) (K13)	P13646	49555.45	8.40E-11	0560
270	ITIH4_HUMAN (Q14624) Inter-alpha-trypsin inhibitor heavy chain H4 precursor (ITI heavy chain H4) (I	Q14624	103294.1	5.77E-09	0556; 0552
271	K0317_HUMAN (O15033) Protein KIAA0317	O15033	94162.6	7.07E-03	0552; 0574
272	O43466 (O43466) Hypothetical protein (Fragment)	O43466	31230.6	7.64E-03	0578; 0574
273	SF3B1_HUMAN (O75533) Splicing factor 3B subunit 1 (Spliceosome associated protein 155) (SAP 155) (S	O75533	145723	1.09E-03	0541; 0560
274	RENR_HUMAN (O75787) Renin receptor precursor (Renin/prorenin receptor) (ATPase, H+ transporting, ly	O75787	38983.34	6.70E-07	0574; 0541
275	LECT1_HUMAN (O75829) Chondromodulin-I precursor (ChM-I) (Leukocyte cell-derived chemotaxin 1) [Cont	O75829	37078.55	6.09E-06	0552; 0541
276	BPAEA_HUMAN (O94833) Bullous pemphigoid antigen 1, isoforms 6/9/10 (Trabeculin-beta) (Bullous pemph	O94833	590630.3	2.08E-03	0556; 0574
277	O94873 (O94873) KIAA0775 protein (Fragment)	O94873	70117.24	7.10E-03	0541; 0574
278	PRPU_HUMAN (O94906) U5 snRNP-associated 102 kDa protein (U5-102 kDa protein)	O94906	106857.9	1.54E-03	0571; 0567

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
279	ZN202_HUMAN (O95125) Zinc finger protein 202	O95125	74673.56	6.83E-03	0560; 0578
280	RECK_HUMAN (O95980) Reversion-inducing cysteine-rich protein with Kazal motifs precursor (hRECK) (S	O95980	106385.6	2.21E-03	0571; 0578
281	LDHA-HUMAN (P00338) L-lactate dehydrogenase A chain (EC 1.1.1.27) (LDH-A) (LDH muscle subunit) (LDH	P00338	36534.34	1.35E-04	0560; 0556
282	ASSY_HUMAN (P00966) Argininosuccinate synthase (EC 6.3.4.5) (Citrulline--aspartate ligase)	P00966	46501.01	5.87E-03	0571; 0541
283	CYTS_HUMAN (P01036) Cystatin S precursor (Salivary acidic protein 1) (Cystatin SA-III)	P01036	16203.97	3.31E-06	0552; 0571
284	KV2A_HUMAN (P01614) Ig kappa chain V-II region Cum	P01614	12668.32	9.27E-06	0578; 0552
285	HV3E_HUMAN (P01766) Ig heavy chain V-III region BRO	P01766	13218.4	2.37E-11	0556; 0571
286	SCG1_HUMAN (P05060) Secretogranin-1 precursor (Secretogranin I) (SgI) (Chromogranin B) (CgB) [Conta	P05060	78199.14	7.52E-06	0571; 0560
287	TBB2_HUMAN (P07437) Tubulin beta-2 chain	P07437	49639.01	1.29E-10	0578; 0560
288	CATB_HUMAN (P07858) Cathepsin B precursor (EC 3.4.22.1) (Cathepsin B1) (APP secretase) (APPS) [Cont	P07858	37796.84	2.93E-05	0578; 0567
289	THIK_HUMAN (P09110) 3-ketoacyl-CoA thiolase, peroxisomal precursor (EC 2.3.1.16) (Beta-ketothiolase	P09110	44263.91	8.00E-04	0571; 0560
290	K2C4_HUMAN (P19013) Keratin, type II cytoskeletal 4 (Cytokeratin-4) (CK-4) (Keratin-4) (K4)	P19013	57259.96	1.64E-05	0578; 0560
291	MT3_HUMAN (P25713) Metallothionein-3 (MT-3) (Metallothionein-III) (MT-III) (Growth inhibitory facto	P25713	6921.488	7.21E-06	0560; 0552
292	TKT_HUMAN (P29401) Transketolase (EC 2.2.1.1) (TK)	P29401	67834.88	9.46E-05	0560; 0578
293	I5P2_HUMAN (P32019) Type II inositol-1,4,5-trisphosphate 5-phosphatase precursor (EC 3.1.3.36) (Pho	P32019	112750.1	4.50E-03	0560; 0578
294	ICAM3_HUMAN (P32942) Intercellular adhesion molecule 3 precursor (ICAM-3) (ICAM-R) (CDw50) (CD50 an	P32942	59345.85	3.49E-03	0571; 0560
295	K22E_HUMAN (P35908) Keratin, type II cytoskeletal 2 epidermal (Cytokeratin-2e) (K2e) (CK 2e)	P35908	65825.37	3.38E-06	0574; 0560
296	ALU6_HUMAN (P39193) Alu subfamily SP sequence contamination warning entry	P39193	64656.59	9.60E-04	0567; 0549
297	BRCA2_HUMAN (P51587) Breast cancer type 2 susceptibility protein (Fanconi anemia group D1 protein)	P51587	383984.9	2.59E-03	0556; 0571
298	ELL_HUMAN (P55199) RNA polymerase II elongation factor ELL (Eleven-nineteen lysine-rich leukemia pr	P55199	68222.91	1.98E-03	0578; 0549
299	ACTB_HUMAN (P60709) Actin, cytoplasmic 1 (Beta-actin)	P60709	41709.74	6.35E-04	0541; 0574
300	PGBM_HUMAN (P98160) Basement membrane-specific heparan sulfate proteoglycan core protein precursor	P98160	468528.2	4.97E-08	0541; 0574
301	TAP1_HUMAN (Q03518) Antigen peptide transporter 1 (APT1) (Peptide transporter TAP1) (ATP-binding ca	Q03518	80913.73	2.20E-03	0571; 0578
302	U33K_HUMAN (Q04323) UBA/UBX 33.3 kDa protein	Q04323	33304.96	6.51E-03	0560; 0556
303	ZN11B_HUMAN (Q06732) Zinc finger protein 11B	Q06732	90624.22	4.57E-03	0535; 0574
304	SOX4_HUMAN (Q06945) Transcription factor SOX-4	Q06945	47233.82	3.00E-03	0574; 0571
305	TRDN_HUMAN (Q13061) Triadin	Q13061	81374.51	1.48E-03	0574; 0578
306	I10R1_HUMAN (Q13651) Interleukin-10 receptor alpha chain precursor (IL-10R-A) (IL-10R1)	Q13651	62864.42	1.84E-04	0535; 0556
307	Q14467 (Q14467) KIAA0068 protein (Fragment)	Q14467	147040.6	6.74E-03	0535; 0578
308	KRHB1_HUMAN (Q14533) Keratin, type II cuticular Hb1 (Hair keratin, type II Hb1) (ghHKb1) (ghHb1) (M	Q14533	54935.82	7.26E-04	0552; 0535
309	GOGB1_HUMAN (Q14789) Golgi autoantigen, golgin subfamily B member 1 (Giantin) (Macrogolgin) (Golgi	Q14789	375846.5	5.99E-03	0541; 0549
310	ZMY11_HUMAN (Q15326) Zinc finger MYND domain containing protein 11 (Adenovirus 5 E1A-binding protei	Q15326	66160.48	2.74E-03	0552; 0571
311	Q15786 (Q15786) Testis calpastatin	Q15786	47056.18	3.44E-03	0571; 0574
312	ITSN1_HUMAN (Q15811) Intersectin-1 (SH3 domain-containing protein 1A) (SH3P17)	Q15811	195410	1.11E-03	0556; 0574
313	DUS5_HUMAN (Q16690) Dual specificity protein phosphatase 5 (EC 3.1.3.48) (EC 3.1.3.16) (Dual specif	Q16690	42080.39	4.50E-04	0556; 0552
314	Q53LP3 (Q53LP3) Hypothetical protein FLJ21870 (C2orf26 protein)	Q53LP3	55638.11	1.89E-03	0552; 0567
315	Q53RD9 (Q53RD9) Hypothetical protein FLJ37440	Q53RD9	47344.78	3.38E-03	0560; 0552
316	Q53TQ3 (Q53TQ3) Hypothetical protein FLJ20309	Q53TQ3	100659.6	6.83E-03	0571; 0552
317	Q5T0F8 (Q5T0F8) Novel protein	Q5T0F8	93537.23	5.83E-03	0571; 0574
318	Q5T1V5 (Q5T1V5) Novel protein (Fragment)	Q5T1V5	17690.71	8.01E-03	0578; 0567
319	Q5VYM8 (Q5VYM8) Unc-13 homolog B (C. elegans)	Q5VYM8	180563.2	4.01E-03	0574; 0578
320	Q68DL7 (Q68DL7) Hypothetical protein DKFZp781G0119	Q68DL7	77181.3	1.62E-03	0567; 0541
321	Q6EKI8 (Q6EKI8) General transcription factor II i repeat domain 2 alpha	Q6EKI8	107162.2	4.27E-03	0535; 0556
322	Q6EMK4 (Q6EMK4) Vasorin	Q6EMK4	71667.73	1.19E-09	0571; 0541
323	Q6P2S8 (Q6P2S8) Hypothetical protein	Q6P2S8	15673.02	2.81E-03	0552; 0556
324	Q6RJU1 (Q6RJU1) RhoGTPase regulating protein variant ARHGAP20-1be	Q6RJU1	130153.4	4.43E-03	0541; 0552
325	Q6ZMX4 (Q6ZMX4) Hypothetical protein FLJ16611	Q6ZMX4	83550.26	5.47E-03	0574; 0541

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
326	Q6ZRP4 (Q6ZRP4) Hypothetical protein FLJ46205	Q6ZRP4	135088.2	3.69E−03	0571; 0556
327	Q6ZVQ3 (Q6ZVQ3) Hypothetical protein FLJ42220	Q6ZVQ3	17595.21	1.21E−04	0535; 0578
328	Q6ZW11 (Q6ZW11) Hypothetical protein FLJ41805	Q6ZW11	13506.89	2.84E−03	0574; 0552
329	UN13D_HUMAN (Q70J99) Unc-13 homolog D (Munc13-4)	Q70J99	123204.8	9.94E−04	0571; 0567
330	Q7Z402 (Q72402) Transmembrane channel-like protein 7	Q7Z402	83447.49	5.08E−04	0574; 0552
331	ABCAC_HUMAN (Q86UK0) ATP-binding cassette sub-family A member 12 (ATP-binding cassette transporter	Q86UK0	293060.7	1.27E−04	0567; 0556
332	Q86VJ0 (Q86VJ0) Aaa-protein	Q86VJ0	77428.84	3.96E−03	0556; 0549
333	Q86VW2 (Q86VW2) RAC/CDC42 exchange factor, isoform 1 (RAC/CDC42/Rho exchange factor GEFT)	Q86VW2	63989.59	2.94E−03	0560; 0578
334	Q86W42 (Q86W42) WD repeat domain 58	Q86W42	37511.05	4.61E−03	0567; 0571
335	Q8N2X6 (Q8N2X6) LOC116349 protein	Q8N2X6	12653.28	1.20E−03	0541; 0578
336	Q8N6W7 (Q8N6W7) PML-RARA regulated adaptor molecule 1	Q8N6W7	73950.18	3.73E−03	0571; 0578
337	Q8NBB8 (Q8NBB8) Hypothetical protein FLJ33743	Q8NBB8	53627.89	6.15E−04	0541; 0571
338	GALT6_HUMAN (Q8NCL4) Polypeptide N-acetylgalactosaminyltransferase 6 (EC 2.4.1.41) (Protein-UDP ace	Q8NCL4	71113.15	4.27E−03	0535; 0571
339	LIPB2_HUMAN (Q8ND30) Liprin-beta 2 (Protein tyrosine phosphatase receptor type f polypeptide-intera	Q8ND30	98383.37	8.29E−04	0578; 0567
340	DYH5_HUMAN (Q8TE73) Ciliary dynein heavy chain 5 (Axonemal beta dynein heavy chain 5) (HL1)	Q8TE73	528667.8	4.96E−03	0560; 0556
341	NEUR4_HUMAN (Q8WWR8) Sialidase 4 (EC 3.2.1.18) (N-acetyl-alpha-neuraminidase 4)	Q8WWR8	51639.02	3.08E−04	0571; 0560
342	RYR2_HUMAN (Q92736) Ryanodine receptor 2 (Cardiac muscle-type ryanodine receptor) (RyR2) (RYR-2) (C	Q92736	564136.1	2.95E−03	0574; 0541
343	COR2A_HUMAN (Q92828) Coronin-2A (WD repeat-containing protein 2) (IR10)	Q92828	59725.43	7.02E−03	0574; 0556
344	SNPC3_HUMAN (Q92966) snRNA-activating protein complex subunit 3 (SNAPc subunit 3) (snRNA-activating	Q92966	46722.65	8.82E−03	0578; 0571
345	Q969T7 (Q969T7) Hypothetical protein MGC20781	Q969T7	33551.02	5.75E−03	0574; 0556
346	Q96E25 (Q96E25) ZNF503 protein	Q96E25	59255.39	9.31E−04	0578; 0541
347	Q96EK0 (Q96EK0) Hypothetical protein MGC4655	Q96EK0	41865.86	5.12E−03	0552; 0541
348	Q96IV6 (Q96IV6) C5orf4 protein	Q96IV6	38976.07	1.54E−04	0541; 0571
349	Q96JD0 (Q96JD0) Amyloid lambda 6 light chain variable region SAR (Fragment)	Q96JD0	12286.89	3.67E−05	0556; 0535
350	K1849_HUMAN (Q96JH8) Protein KIAA1849	Q96JH8	116630	3.22E−03	0574; 0560
351	ACON_HUMAN (Q99798) Aconitate hydratase, mitochondrial precursor (EC 4.2.1.3) (Citrate hydro-lyase)	Q99798	85372.02	1.20E−03	0541; 0578
352	AKAP9_HUMAN (Q99996) A-kinase anchor protein 9 (Protein kinase A anchoring protein 9) (PRKA9) (A-ki	Q99996	453386.1	4.17E−03	0549; 0571
353	SIN1_HUMAN (Q9BPZ7) Stress-activated map kinase interacting protein 1 (SAPK interacting protein 1)	Q9BPZ7	59086.05	6.16E−03	0567; 0541
354	Q9BR77 (Q9BR77) Hypothetical protein MGC13183 (Hypothetical protein FLJ14732)	Q9BR77	57450.07	2.90E−04	0541; 0556
355	DATF1_HUMAN (Q9BTC0) Death-associated transcription factor 1	Q9BTC0	129070.5	2.77E−03	0552; 0567
356	Q9BZV3 (Q9BZV3) Interphotoreceptor matrix proteoglycan 200	Q9BZV3	138545	6.65E−05	0541; 0574
357	DYI4_HUMAN (Q9GZS0) Dynein intermediate chain 2, axonemal (Axonemal dynein intermediate chain 2)	Q9GZS0	68807.61	1.67E−03	0571; 0549
358	Q9H0C8 (Q9H0C8) Hypothetical protein DKFZp434J2031 (Integrin-linked kinase-associated serine/threon	Q9H0C8	42879.83	8.69E−03	0552; 0567
359	ZN335_HUMAN (Q9H4Z2) Zinc finger protein 335	Q9H4Z2	144802	1.44E−03	0541; 0567
360	RANB3_HUMAN (Q9H6Z4) Ran-binding protein 3 (RanBP3)	Q9H6Z4	60173.32	1.48E−03	0552; 0556
361	LPHN3_HUMAN (Q9HAR2) Latrophilin-3 precursor (Calcium-independent alpha-latrotoxin receptor 3) (Lec	Q9HAR2	161709.3	5.64E−03	0549; 0541
362	RENT2_HUMAN (Q9HAU5) Regulator of nonsense transcripts 2 (Nonsense mRNA reducing factor 2) (Up-fram	Q9HAU5	147716.9	9.67E−04	0560; 0567
363	Q9HB10 (Q9HB10) Pinch-2 protein (Hypothetical protein LOC96626) (LIM and senescent cell antigen-lik	Q9HB10	13242.23	3.83E−03	0567; 0552
364	RDH14_HUMAN (Q9HBH5) Retinol dehydrogenase 14 (EC 1.1.1.—) (Alcohol dehydrogenase PAN2)	Q9HBH5	36841.38	5.57E−03	0578; 0574
365	Q9HC06 (Q9HC06) Cd002 protein	Q9HC06	43466.54	4.76E−03	0560; 0556
366	ITM2C_HUMAN (Q9NQX7) Integral membrane protein 2C (Transmembrane protein BRI3) (Cerebral protein 14	Q9NQX7	30204.46	1.96E−03	0578; 0556
367	Q9NS87 (Q9NS87) Kinesin-like protein 2	Q9NS87	160060.4	6.49E−03	0552; 0549
368	Q9NXU1 (Q9NXU1) Hypothetical protein FLJ20055	Q9NXU1	46686.5	8.52E−03	0567; 0552
369	UGGG1_HUMAN (Q9NYU2) UDP-glucose:glycoprotein glucosyltransferase 1 precursor (EC 2.4.1.—) (UDP-glu	Q9NYU2	174866.5	1.64E−03	0552; 0556
370	VPS18_HUMAN (Q9P253) Vacuolar protein sorting 18 (hVPS18)	Q9P253	110115.9	1.55E−03	0574; 0552
371	TRABD_HUMAN (Q9UGI0) TRABID protein (Zinc finger Ran-binding domain containing 1)	Q9UGI0	80855.84	7.58E−03	0541; 0556
372	DCTN4_HUMAN (Q9UJW0) Dynactin subunit 4 (Dynactin subunit p62)	Q9UJW0	52303.69	2.67E−03	0535; 0556
373	Q9ULH9 (Q9ULH9) KIAA1241 protein (Fragment)	Q9ULH9	97158.45	3.40E−04	0567; 0574

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
374	SATB2_HUMAN (Q9UPW6) DNA-binding protein SATB2 (Special AT-rich sequence-binding protein 2)	Q9UPW6	82504.16	8.57E-04	0556; 0535
375	LZTS1_HUMAN (Q9Y250) Leucine zipper putative tumor suppressor 1 (F37/esophageal cancer-related gene	Q9Y250	66440.97	3.05E-04	0552; 0549
376	WBP11_HUMAN (Q9Y2W2) WW domain-binding protein 11 (WBP-11) (SH3 domain-binding protein SNP70) (Npw3	Q9Y2W2	69954.12	2.54E-04	0549; 0541
377	TF3C3_HUMAN (Q9Y5Q9) General transcription factor 3C polypeptide 3 (Transcription factor IIIC-gamma	Q9Y5Q9	101207.8	4.66E-03	0571; 0574
378	Q5MJ67 (Q5MJ67) CMYA3	Q5MJ67	378997.3	1.45E-04	0552
379	Q6N095 (Q6N095) Hypothetical protein DKFZp686K03196	Q6N095	52327.14	8.86E-04	0556
380	O15422 (O15422) Probable zinc finger protein H101 (Fragment)	O15422	13289.94	4.52E-05	0552
381	HNRPR_HUMAN (O43390) Heterogeneous nuclear ribonucleoprotein R (hnRNP R)	O43390	70899.22	5.51E-04	0567
382	O43532 (O43532) RIG-like 7-1	O43532	19272.97	4.33E-03	0571
383	PTCD1_HUMAN (O75127) Pentatricopeptide repeat protein 1	O75127	78805.96	8.20E-04	0574
384	AL1A1_HUMAN (P00352) Retinal dehydrogenase 1 (EC 1.2.1.36) (RalDH1) (RALDH 1) (Aldehyde dehydrogena	P00352	54695.95	2.56E-07	0549
385	CYTB_HUMAN (P04080) Cystatin B (Liver thiol proteinase inhibitor) (CPI-B) (Stefin B)	P04080	11132.59	1.05E-09	0560
386	SODM_HUMAN (P04179) Superoxide dismutase [Mn], mitochondrial precursor (EC 1.15.1.1)	P04179	24706.56	3.02E-06	0560
387	KV3I_HUMAN (P04433) Ig kappa chain V-III region VG precursor (Fragment)	P04433	12567.31	1.61E-05	0556
388	HV2I_HUMAN (P06331) Ig heavy chain V-II region ARH-77 precursor	P06331	16218.12	7.95E-04	0560
389	CRGB_HUMAN (P07316) Gamma crystallin B (Gamma crystallin 1-2)	P07316	20762.91	8.74E-06	0549
390	GSTM1_HUMAN (P09488) Glutathione S-transferase Mu 1 (EC 2.5.1.18) (GSTM1-1) (GST class-mu 1) (GSTM1	P09488	25564.02	2.53E-04	0560
391	ROA1_HUMAN (P09651) Heterogeneous nuclear ribonucleoprotein A1 (Helix-destabilizing protein) (Singl	P09651	38691.05	4.89E-07	0560
392	CMGA_HUMAN (P10645) Chromogranin A precursor (CgA) (Pituitary secretory protein I) (SP-I) [Contains	P10645	50699.73	1.46E-04	0541
393	ENOB_HUMAN (P13929) Beta-enolase (EC 4.2.1.11) (2-phospho-D-glycerate hydro-lyase) (Muscle-specific	P13929	46826.33	7.77E-09	0578
394	PTN2_HUMAN (P17706) Tyrosine-protein phosphatase, non-receptor type 2 (EC 3.1.3.48) (T-cell protein	P17706	48497.45	4.46E-04	0552
395	PTMS_HUMAN (P20962) Parathymosin	P20962	11392.15	1.96E-06	0578
396	COIA1_HUMAN (P39060) Collagen alpha 1(XVIII) chain precursor [Contains: Endostatin]	P39060	153731.9	7.65E-04	0552
397	TSC2_HUMAN (P49815) Tuberin (Tuberous sclerosis 2 protein)	P49815	200621.4	1.76E-05	0571
398	MECP2_HUMAN (P51608) Methyl-CpG-binding protein 2 (MeCP-2 protein) (MeCP2)	P51608	52408.71	2.49E-03	0552
399	PUR1_HUMAN (Q06203) Amidophosphoribosyltransferase precursor (EC 2.4.2.14) (Glutamine phosphoribosy	Q06203	57362.45	1.67E-03	0578
400	LTBP2_HUMAN (Q14767) Latent transforming growth factor-beta-binding protein 2 precursor (LTBP-2)	Q14767	194935.4	1.09E-04	0578
401	Q4UJ75 (Q4UJ75) Novel protein similar to ankyrin repeat domain 20A (ANKRD20A)	Q4UJ75	94090.2	1.31E-03	0578
402	Q5GC90 (Q5GC90) HERC6 splice variant	Q5GC90	111012.2	7.32E-03	0549
403	Q5H9Q6 (Q5H9Q6) Hypothetical protein DKFZp781N0678	Q5H9Q6	64496.32	2.49E-03	0556
404	Q5SGD5 (Q5SGD5) Maguin-like protein variant II (Maguin-like protein variant III) (Maguin-like prote	Q5SGD5	61848.88	4.57E-03	0552
405	ZCHC6_HUMAN (Q5VYS8) Zinc finger CCHC domain containing protein 6	Q5VYS8	171121	3.70E-05	0549
406	Q6GMX7 (Q6GMX7) Hypothetical protein	Q6GMX7	51598.66	7.72E-04	0560
407	Q6NUI2 (Q6NUI2) LOC150763 protein	Q6NUI2	87507.18	9.25E-04	0571
408	Q6PJ73 (Q6PJ73) DPF1 protein (Fragment)	Q6PJ73	47450.2	1.65E-03	0578
409	ATAD2_HUMAN (Q6PL18) ATPase family AAA domain containing protein 2	Q6PL18	158456	6.93E-03	0574
410	Q6ZW49 (Q6ZW49) Hypothetical protein FLJ41606	Q6ZW49	117615.6	5.23E-03	0552
411	Q8IY85 (Q8IY85) Hypothetical protein FLJ40342	Q8IY85	110027.5	2.60E-04	0560
412	CI126_HUMAN (Q8N9R8) Protein C9orf126	Q8N9R8	70385.07	4.09E-03	0578
413	Q8NAI5 (Q8NAI5) Hypothetical protein FLJ35318	Q8NAI5	25654.67	9.38E-04	0552
414	ACBD4_HUMAN (Q8NC06) Acyl-CoA binding domain containing protein 4	Q8NC06	30287.72	3.34E-03	0541
415	AT8B4_HUMAN (Q8TF62) Probable phospholipid-transporting ATPase IM (EC 3.6.3.1) (ATPase class I type	Q8TF62	135853.6	1.41E-03	0549
416	FAM3C_HUMAN (Q92520) Protein FAM3C precursor (Protein GS3786)	Q92520	24664.59	3.85E-03	0574
417	K1H5_HUMAN (Q92764) Keratin, type I cuticular Ha5 (Hair keratin, type I Ha5)	Q92764	47566.21	1.49E-04	0549
418	SFRP3_HUMAN (Q92765) Secreted frizzled-related protein 3 precursor (sFRP-3) (Frizzled-related prote	Q92765	36230.29	1.65E-04	0560

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
419	RL10L_HUMAN (Q96L21) 60S ribosomal protein L10-like	Q96L21	24371.68	3.34E-03	0535
420	Q9BRQ8 (Q9BRQ8) Apoptosis-inducing factor (AIF)-like mitchondrion-associated inducer of death (P53-	Q9BRQ8	40501.28	2.40E-03	0552
421	SPTN4_HUMAN (Q9H254) Spectrin beta chain, brain 3 (Spectrin, non-erythroid beta chain 3) (Beta-IV s	Q9H254	288806.1	1.24E-03	0552
422	Q9H7Z0 (Q9H7Z0) Hypothetical protein FLJ14058	Q9H7Z0	24063.12	1.23E-03	0574
423	AT131_HUMAN (Q9HD20) Probable cation-transporting ATPase 13A1 (EC 3.6.3.—)	Q9HD20	132869.9	2.33E-03	0552
424	SEM4B_HUMAN (Q9NPR2) Semaphorin-4B precursor	Q9NPR2	92134.84	1.03E-06	0574
425	Q9Y348 (Q9Y348) Hypothetical protein	Q9Y348	12406.69	7.64E-03	0549
426	Q6FGL5 (Q6FGL5) LCN2 protein (Fragment)	Q6FGL5	22547.66	2.11E-10	0552
427	MUCB_HUMAN (P04220) Ig mu heavy chain disease protein (BOT)	P04220	43030.31	5.96E-07	0578
428	K2C1_HUMAN (P04264) Keratin, type II cytoskeletal 1 (Cytokeratin-1) (CK-1) (Keratin-1) (K1) (67 kDa	P04264	65846.88	8.29E-05	0574
429	RABP1_HUMAN (P29762) Cellular retinoic acid binding protein 1 (Cellular retinoic acid binding prote	P29762	15424.71	1.13E-06	0560
430	AL3A1_HUMAN (P30838) Aldehyde dehydrogenase, dimeric NADP-preferring (EC 1.2.1.5) (ALDH class 3) (A	P30838	50346.91	7.08E-03	0578
431	DPOD2_HUMAN (P49005) DNA polymerase delta subunit 2 (EC 2.7.7.7) (DNA polymerase delta subunit p50)	P49005	51257.05	4.77E-03	0556
432	QORX_HUMAN (Q53FA7) Putative quinone oxidoreductase (EC 1.—.—.—) (Tumor protein p53-inducible prote	Q53FA7	35513.59	1.04E-03	0552
433	Q65ZC8 (Q65ZC8) Single-chain Fv (Fragment)	Q65ZC8	26110.55	1.26E-05	0535
434	AP3B1_HUMAN (O00203) Adapter-related protein complex 3 beta 1 subunit (Beta3A-adaptin) (Adaptor pro	O00203	121274.4	8.21E-03	0567
435	PSD12_HUMAN (O00232) 26S proteasome non-ATPase regulatory subunit 12 (26S proteasome regulatory sub	O00232	52739.59	8.95E-03	0552
436	BMR1B_HUMAN (O00238) Bone morphogenetic protein receptor type IB precursor (EC 2.7.1.37)	O00238	56893.71	7.71E-03	0552
437	WWP2_HUMAN (O00308) Nedd-4-like E3 ubiquitin-protein ligase WWP2 (EC 6.3.2.—) (WW domain-containing	O00308	98850.05	4.72E-03	0556
438	O00319 (O00319) WUGSC:H_DJ525N14.1 protein	O00319	74438.16	2.51E-03	0571
439	ODPX_HUMAN (O00330) Pyruvate dehydrogenase protein X component, mitochondrial precursor (Dihydrolip	O00330	54088.89	5.59E-03	0571
440	PLK4_HUMAN (O00444) Serine/threonine-protein kinase PLK4 (EC 2.7.1.37) (Polo-like kinase 4) (PLK-4)	O00444	108903.3	3.85E-03	0541
441	O00461 (O00461) 130 kD Golgi-localized phosphoprotein	O00461	81831.17	7.79E-03	0567
442	AGRN_HUMAN (O00468) Agrin precursor	O00468	214747.2	1.16E-03	0571
443	NPT3_HUMAN (O00624) Sodium-dependent phosphate transport protein 3 (Sodium/phosphate cotransporter	O00624	47319.56	4.49E-04	0567
444	CUTL2_HUMAN (O14529) Homeobox protein Cux-2 (Cut-like 2)	O14529	154100.3	6.33E-03	0556
445	O14712 (O14712) Cell cycle progression restoration 8 protein	O14712	44292.57	9.69E-03	0549
446	CHK1_HUMAN (O14757) Serine/threonine-protein kinase Chk1 (EC 2.7.1.37)	O14757	54384.94	6.24E-03	0571
447	TRI66_HUMAN (O15016) Tripartite motif protein 66	O15016	134317.6	7.00E-03	0560
448	DCAK1_HUMAN (O15075) Serine/threonine-protein kinase DCAMKL1 (EC 2.7.1.37) (Doublecortin-like and C	O15075	82172.98	9.71E-03	0541
449	IKKA_HUMAN (O15111) Inhibitor of nuclear factor kappa-B kinase alpha subunit (EC 2.7.1.—) (I kappa-	O15111	84599.03	6.24E-03	0560
450	VILL_HUMAN (O15195) Villin-like protein	O15195	95847.38	3.84E-04	0578
451	VGF_HUMAN (O15240) Neurosecretory protein VGF precursor	O15240	67246.72	5.02E-03	0571
452	O15504 (O15504) Hypothetical protein CG1	O15504	44844.05	9.61E-03	0556
453	MSH5_HUMAN (O43196) MutS protein homolog 5	O43196	92816.59	5.63E-04	0556
454	O43305 (O43305) KIAA0421 protein (Fragment)	O43305	223741	4.29E-03	0567
455	O43314 (O43314) KIAA0433 protein (Fragment)	O43314	141615.9	2.82E-03	0556
456	O43686 (O43686) Interphotoreceptor matrix proteoglycan 150 (OTTHUMP00000016767)	O43686	89331.24	1.60E-09	0541
457	O43857 (O43857) Fas-ligand associated factor 2 (Fragment)	O43857	16002.3	1.43E-03	0574
458	H6ST1_HUMAN (O60243) Heparan-sulfate 6-O-sulfotransferase 1 (EC 2.8.2.—) (HS6ST-1)	O60243	48164.27	7.29E-03	0535
459	KPRB_HUMAN (O60256) Phosphoribosyl pyrophosphate synthetase-associated protein 2 (PRPP synthetase-a	O60256	40899.39	1.83E-04	0552
460	O60276 (O60276) KIAA0523 protein (Fragment)	O60276	53723.5	7.19E-04	0560
461	O60350 (O60350) Sodium bicarbonate cotransporter2	O60350	114131.7	1.42E-03	0567
462	O60502 (O60502) Meningioma-expressed antigen 5	O60502	102848.9	3.70E-03	0549
463	VINEX_HUMAN (O60504) Vinexin (Sorbin and SH3 domain-containing protein 3) (SH3-containing adapter m	O60504	75283	5.71E-03	0552
464	M6PBP_HUMAN (O60664) Mannose-6-phosphate receptor binding protein 1 (Cargo selection protein TIP47)	O60664	47017.98	7.29E-03	0552
465	JAK2_HUMAN (O60674) Tyrosine-protein kinase JAK2 (EC 2.7.1.112) (Janus kinase 2) (JAK-2)	O60674	130589.7	8.75E-03	0560
466	O60687 (O60687) Sushi-repeat-containing protein, X-linked 2	O60687	52937.79	1.02E-03	0556

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
467	FMO6_HUMAN (O60774) Putative dimethylaniline monooxygenase [N-oxide-forming] 6 (EC 1.14.13.8) (Flav	O60774	61251.68	1.50E-04	0549
468	HNRCL_HUMAN (O60812) Heterogeneous nuclear ribonucleoprotein C-like dJ845O24.4 (hnRNP core protein	O60812	32122.71	6.44E-05	0560
469	BRD4_HUMAN (O60885) Bromodomain-containing protein 4 (HUNK1 protein)	O60885	152123.8	3.01E-04	0535
470	OPHN1_HUMAN (O60890) Oligophrenin 1	O60890	91583.03	8.75E-03	0571
471	O75137 (O75137) KIAA0642 protein (Fragment)	O75137	153399.6	4.21E-03	0535
472	HIP1R_HUMAN (O75146) Huntingtin-interacting protein 1-related protein (Hip1-related) (Hip 12)	O75146	119315	6.12E-03	0578
473	O75322 (O75322) Hsp89-alpha-delta-N	O75322	63211.7	1.24E-05	0578
474	FNBP3_HUMAN (O75400) Formin-binding protein 3 (Huntingtin yeast partner A) (Huntingtin-interacting	O75400	108736.4	2.50E-03	0571
475	CREG1_HUMAN (O75629) CREG1 protein precursor (Cellular repressor of E1A-stimulated genes 1)	O75629	24059.31	1.02E-05	0541
476	OFD1_HUMAN (O75665) Oral-facial-digital syndrome 1 protein (Protein 71-7A)	075665	116598.9	3.36E-04	0541
477	O75703 (O75703) Hypothetical protein A-270G1.2	O75703	12404.55	4.17E-03	0552
478	TCEA3_HUMAN (O75764) Transcription elongation factor A protein 3 (Transcription elongation factor S	O75764	38946.71	8.19E-03	0574
479	FTHFD_HUMAN (O75891) 10-formyltetrahydrofolate dehydrogenase (EC 1.5.1.6) (10-FTHFDH) (Aldehyde deh	O75891	98766.77	8.40E-04	0549
480	ST1C2_HUMAN (O75897) Sulfotransferase 1C2 (EC 2.8.2.—) (SULT1C) (SULT1C#2)	O75897	35510.89	7.10E-03	0578
481	SYUG_HUMAN (O76070) Gamma-synuclein (Persyn) (Breast cancer-specific gene 1 protein) (Synoretin) (S	O76070	13292.8	1.54E-03	0560
482	DDAH1_HUMAN (O94760) NG,NG-dimethylarginine dimethylaminohydrolase 1 (EC 3.5.3.18) (Dimethylarginin	O94760	30970.89	6.99E-03	0578
483	AT10B_HUMAN (O94823) Probable phospholipid-transporting ATPase VB (EC 3.6.3.1)	O94823	165283.6	1.82E-03	0541
484	O94843 (O94843) KIAA0739 protein (Fragment)	O94843	127881.5	5.66E-03	0574
485	NFASC_HUMAN (O94856) Neurofascin precursor	O94856	137533	1.38E-03	0541
486	O94969 (O94969) KIAA0895 protein (Fragment)	O94969	61219.9	7.16E-03	0549
487	UNC5C_HUMAN (O95185) Netrin receptor UNC5C precursor (Unc-5 homolog C) (Unc-5 homolog 3)	O95185	103036	5.25E-03	0541
488	O95267 (O95267) Calcium and DAG-regulated guanine nucleotide exchange factor II	O95267	90272.02	6.48E-03	0541
489	O95285 (O95285) Erythroblast macrophage protein EMP	O95285	43879.31	9.52E-03	0578
490	SMC2_HUMAN (O95347) Structural maintenance of chromosome 2-like 1 protein (Chromosome-associated pr	O95347	135695.7	4.58E-03	0578
491	ZBT7A_HUMAN (O95365) Zinc finger and BTB domain containing protein 7A (Leukemia/lymphoma related fa	O95365	61400.79	7.26E-03	0541
492	ATS2_HUMAN (O95450) ADAMTS-2 precursor (EC 3.4.24.14) (A disintegrin and metalloproteinase with thr	O95450	134635.7	3.67E-03	0574
493	HS74L_HUMAN (O95757) Heat shock 70 kDa protein 4L (Osmotic stress protein 94) (Heat shock 70-relate	O95757	94426.4	1.12E-03	0567
494	STAU_HUMAN (O95793) Double-stranded RNA-binding protein Staufen homolog	O95793	63227.92	6.38E-03	0552
495	UCP4_HUMAN (O95847) Mitochondrial uncoupling protein 4 (UCP 4) (Solute carrier family 25 member 27)	O95847	36040.65	1.45E-03	0571
496	SODC_HUMAN (P00441) Superoxide dismutase [Cu—Zn] (EC 1.15.1.1)	P00441	15794.87	4.16E-03	0541
497	C1R_HUMAN (P00736) Complement C1r subcomponent precursor (EC 3.4.21.41) (Complement component 1, r	P00736	80121.9	3.35E-08	0541
498	CFAD_HUMAN (P00746) Complement factor D precursor (EC 3.4.21.46) (C3 convertase activator) (Properd	P00746	26986.84	8.77E-05	0578
499	CAH1_HUMAN (P00915) Carbonic anhydrase 1 (EC 4.2.1.1) (Carbonic anhydrase I) (Carbonate dehydratase	P00915	28721.34	1.12E-07	0552
500	CAH2_HUMAN (P00918) Carbonic anhydrase 2 (EC 4.2.1.1) (Carbonic anhydrase II) (Carbonate dehydratas	P00918	29096.89	6.62E-03	0560
501	KV2C_HUMAN (P01616) Ig kappa chain V-II region MIL	P01616	12048.05	9.27E-06	0578
502	KV3C_HUMAN (P01621) Ig kappa chain V-III region NG9 precursor (Fragment)	P01621	10722.28	9.08E-03	0578
503	HV1A_HUMAN (P01742) Ig heavy chain V-I region EU	P01742	12464.08	8.83E-03	0556
504	HV3B_HUMAN (P01763) Ig heavy chain V-III region WEA	P01763	12248.52	7.67E-04	0535
505	HV3C_HUMAN (P01764) Ig heavy chain V-III region VH26 precursor	P01764	12574.22	5.13E-03	0556
506	HV3G_HUMAN (P01768) Ig heavy chain V-III region CAM	P01768	13659.17	4.59E-05	0535
507	HV3J_HUMAN (P01771) Ig heavy chain V-III region HIL	P01771	13557.22	3.79E-03	0535
508	HV3T_HUMAN (P01781) Ig heavy chain V-III region GAL	P01781	12722.21	9.93E-03	0535
509	APOC3_HUMAN (P02656) Apolipoprotein C-III precursor (Apo-CIII) (ApoC-III)	P02656	10845.5	5.51E-05	0552

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
510	C1QB_HUMAN (P02746) Complement C1q subcomponent, B chain precursor	P02746	26442.4	2.43E-06	0578
511	FINC_HUMAN (P02751) Fibronectin precursor (FN) (Cold-insoluble globulin) (CIG)	P02751	262439.5	2.14E-03	0560
512	ESR1_HUMAN (P03372) Estrogen receptor (ER) (Estradiol receptor) (ER-alpha)	P03372	66173.23	1.85E-03	0560
513	ALK1_HUMAN (P03973) Antileukoproteinase 1 precursor (ALP) (HUSI-1) (Seminal proteinase inhibitor) (	P03973	14315.91	6.02E-03	0571
514	HMDH_HUMAN (P04035) 3-hydroxy-3-methylglutaryl-coenzyme A reductase (EC 1.1.1.34) (HMG-CoA reductas	P04035	97412.74	2.11E-03	0556
515	MT1A_HUMAN (P04731) Metallothionein-1A (MT-1A) (Metallothionein-IA) (MT-IA)	P04731	6128.206	1.40E-05	0560
516	MT1F_HUMAN (P04733) Metallothionein-1F (MT-1F) (Metallothionein-IF) (MT-IF)	P04733	6081.223	8.20E-06	0560
517	APOD_HUMAN (P05090) Apolipoprotein D precursor (Apo-D) (ApoD)	P05090	21261.77	4.72E-03	0552
518	INSR_HUMAN (P06213) Insulin receptor precursor (EC 2.7.1.112) (IR) (CD220 antigen) [Contains: Insul	P06213	156206.1	1.01E-03	0560
519	KV40_HUMAN (P06312) Ig kappa chain V-IV region precursor (Fragment)	P06312	13371.6	6.14E-05	0556
520	S10A9_HUMAN (P06702) Calgranulin B (Migration inhibitory factor-related protein 14) (MRP-14) (P14)	P06702	13233.5	6.68E-06	0571
521	G6PI_HUMAN (P06744) Glucose-6-phosphate isomerase (EC 5.3.1.9) (GPI) (Phosphoglucose isomerase) (PG	P06744	62976.29	1.26E-03	0578
522	ADHA_HUMAN (P07327) Alcohol dehydrogenase alpha chain (EC 1.1.1.1)	P07327	39701.49	7.62E-07	0560
523	OPSD_HUMAN (P08100) Rhodopsin (Opsin 2)	P08100	38866.51	3.01E-09	0574
524	SODE_HUMAN (P08294) Extracellular superoxide dismutase [Cu—Zn] precursor (EC 1.15.1.1) (EC-SOD)	P08294	25864.7	6.83E-07	0541
525	DOPO_HUMAN (P09172) Dopamine beta-hydroxylase precursor (EC 1.14.17.1) (Dopamine beta-monooxygenase	P09172	67570.06	3.69E-03	0574
526	PARP1_HUMAN (P09874) Poly [ADP-ribose] polymerase 1 (EC 2.4.2.30) (PARP-1) (ADPRT) (NAD(+) ADP-ribo	P09874	112881.4	5.02E-03	0574
527	UCHL1_HUMAN (P09936) Ubiquitin carboxyl-terminal hydrolase isozyme L1 (EC 3.4.19.12) (EC 6.—.—.—) (	P09936	24808.46	8.46E-05	0560
528	ALDOC_HUMAN (P09972) Fructose-bisphosphate aldolase C (EC 4.1.2.13) (Brain-type aldolase)	P09972	39300.21	2.20E-05	0578
529	TAU_HUMAN (P10636) Microtubule-associated protein tau (Neurofibrillary tangle protein) (Paired heli	P10636	78698.83	9.98E-03	0535
530	CO7_HUMAN (P10643) Complement component C7 precursor	P10643	93457.27	6.15E-04	0552
531	PHS3_HUMAN (P11216) Glycogen phosphorylase, brain form (EC 2.4.1.1)	P11216	96503.63	2.15E-03	0552
532	K2C3_HUMAN (P12035) Keratin, type II cytoskeletal 3 (Cytokeratin-3) (CK-3) (Keratin-3) (K3) (65 kDa	P12035	64464.63	1.41E-05	0552
533	CO6A1_HUMAN (P12109) Collagen alpha 1(VI) chain precursor	P12109	108480.1	7.42E-06	0567
534	IMDH2_HUMAN (P12268) Inosine-5'-monophosphate dehydrogenase 2 (EC 1.1.1.205) (IMP dehydrogenase 2)	P12268	55769.72	7.59E-03	0571
535	CRAL_HUMAN (P12271) Cellular retinaldehyde-binding protein (CRALBP)	P12271	36320.25	5.43E-08	0560
536	ANXA3_HUMAN (P12429) Annexin A3 (Annexin III) (Lipocortin III) (Placental anticoagulant protein III	P12429	36221.62	8.89E-03	0560
537	K2C5_HUMAN (P13647) Keratin, type II cytoskeletal 5 (Cytokeratin-5) (CK-5) (Keratin-5) (K5) (58 kDa	P13647	62409.08	6.24E-04	0578
538	MTDC_HUMAN (P13995) Bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase, mitochondr	P13995	37296.94	4.32E-03	0541
539	IL1R1_HUMAN (P14778) Interleukin-1 receptor type I precursor (IL-1R-1) (IL-1RT1) (IL-1R-alpha) (p80	P14778	65360.72	9.77E-03	0549
540	CD19_HUMAN (P15391) B-lymphocyte antigen CD19 precursor (B-lymphocyte surface antigen B4) (Leu-12)	P15391	61030.84	6.70E-03	0574
541	PLCG2_HUMAN (P16885) 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase gamma 2 (EC 3.1.4.11	P16885	147842.9	7.79E-03	0549
542	ZNF20_HUMAN (P17024) Zinc finger protein 20 (Zinc finger protein KOX13) (DKFZp572P0920)	P17024	61527.24	5.06E-04	0541
543	AK1C4_HUMAN (P17516) Aldo-keto reductase family 1 member C4 (EC 1.1.1.—) (Chlordecone reductase) (E	P17516	37071.01	6.23E-03	0571
544	DESM_HUMAN (P17661) Desmin	P17661	53372.19	2.95E-03	0560
545	ITB6_HUMAN (P18564) Integrin beta-6 precursor	P18564	85879.23	9.63E-03	0535
546	SDC1_HUMAN (P18827) Syndecan-1 precursor (SYND1) (CD138 antigen)	P18827	32456.83	6.98E-03	0556
547	AMD_HUMAN (P19021) Peptidyl-glycine alpha-amidating monooxygenase precursor (EC 1.14.17.3) (PAM)	P19021	108263.4	1.42E-03	0541
548	CADH2_HUMAN (P19022) Neural-cadherin precursor (N-cadherin) (Cadherin-2)	P19022	99789.42	2.80E-04	0556

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
549	PLCG1_HUMAN (P19174) 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase gamma 1 (EC 3.1.4.11	P19174	148437.5	2.40E-03	0549
550	ITIH2_HUMAN (P19823) Inter-alpha-trypsin inhibitor heavy chain H2 precursor (ITI heavy chain H2) (I	P19823	106369.8	6.05E-06	0552
551	HXA5_HUMAN (P20719) Homeobox protein Hox-A5 (Hox-1C)	P20719	29327	2.97E-03	0552
552	PTN_HUMAN (P21246) Pleiotrophin precursor (PTN) (Heparin-binding growth-associated molecule) (HB-GA	P21246	18929.67	6.84E-04	0567
553	CALB2_HUMAN (P22676) Calretinin (CR) (29 kDa calbindin)	P22676	31501.63	7.50E-05	0578
554	COF1_HUMAN (P23528) Cofilin-1 (Cofilin, non-muscle isoform) (18 kDa phosphoprotein) (p18)	P23528	18359.62	6.52E-06	0578
555	THTM_HUMAN (P25325) 3-mercaptopyruvate sulfurtransferase (EC 2.8.1.2) (MST)	P25325	33026.6	8.45E-03	0560
556	ATPA_HUMAN (P25705) ATP synthase alpha chain, mitochondrial precursor (EC 3.6.3.14)	P25705	59713.73	5.75E-04	0578
557	CO8A1_HUMAN (P27658) Collagen alpha 1(VIII) chain precursor (Endothelial collagen)	P27658	73317.22	4.71E-03	0578
558	GSTM2_HUMAN (P28161) Glutathione S-transferase Mu 2 (EC 2.5.1.18) (GSTM2-2) (GST class-mu 2)	P28161	25596.95	9.81E-05	0560
559	PRDX6_HUMAN (P30041) Peroxiredoxin 6 (EC 1.11.1.15) (Antioxidant protein 2) (1-Cys peroxiredoxin) (	P30041	24888.15	9.95E-05	0560
560	ILEU_HUMAN (P30740) Leukocyte elastase inhibitor (LEI) (Serpin B1) (Monocyte/neutrophil elastase in	P30740	42714.77	2.07E-03	0571
561	GDIA_HUMAN (P31150) Rab GDP dissociation inhibitor alpha (Rab GDI alpha) (GDI-1) (XAP-4) (Oligophre	P31150	50550.21	2.15E-09	0578
562	PRDX2_HUMAN (P32119) Peroxiredoxin 2 (EC 1.11.1.15) (Thioredoxin peroxidase 1) (Thioredoxin-depende	P32119	21747.2	9.20E-03	0552
563	MCM5_HUMAN (P33992) DNA replication licensing factor MCM5 (CDC46 homolog) (P1-CDC46)	P33992	82233.27	2.80E-03	0578
564	TSP2_HUMAN (P35442) Thrombospondin-2 precursor	P35442	129871.5	7.68E-03	0552
565	TSP4_HUMAN (P35443) Thrombospondin-4 precursor	P35443	105801.8	7.50E-03	0535
566	PPCKC_HUMAN (P35558) Phosphoenolpyruvate carboxykinase, cytosolic [GTP] (EC 4.1.1.32) (Phosphoenolp	P35558	69163.79	4.40E-03	0541
567	IRS1_HUMAN (P35568) Insulin receptor substrate 1 (IRS-1)	P35568	131509	7.44E-03	0541
568	MYH11_HUMAN (P35749) Myosin-11 (Myosin heavy chain, smooth muscle isoform) (SMMHC)	P35749	227197.9	1.79E-03	0560
569	GLRX1_HUMAN (P35754) Glutaredoxin-1 (Thioltransferase-1) (TTase-1)	P35754	11637.14	9.41E-06	0560
570	ZNF93_HUMAN (P35789) Zinc finger protein 93 (Zinc finger protein HTF34) (Fragment)	P35789	70526.29	8.78E-05	0535
571	MOT8_HUMAN (P36021) Monocarboxylate transporter 8 (MCT 8) (X-linked PEST-containing transporter) (M	P36021	66357.57	5.94E-03	0567
572	PERI_HUMAN (P41219) Peripherin	P41219	53845.66	8.63E-05	0560
573	JAD1C_HUMAN (P41229) Jumonji/ARID domain-containing protein 1C (SmcX protein) (Xe169 protein)	P41229	175692.8	3.07E-04	0571
574	SK2L2_HUMAN (P42285) Superkiller viralicidic activity 2-like 2	P42285	117729.4	2.00E-05	0556
575	TEC_HUMAN (P42680) Tyrosine-protein kinase Tec (EC 2.7.1.112)	P42680	73581.92	9.43E-03	0556
576	DCC_HUMAN (P43146) Netrin receptor DCC precursor (Tumor suppressor protein DCC) (Colorectal cancer	P43146	158356.8	2.63E-03	0541
577	MATR3_HUMAN (P43243) Matrin-3	P43243	94564.67	2.10E-03	0552
578	RANG_HUMAN (P43487) Ran-specific GTPase-activating protein (Ran binding protein 1) (RanBP1)	P43487	23295.58	8.40E-03	0552
579	AFAM_HUMAN (P43652) Afamin precursor (Alpha-albumin) (Alpha-Alb)	P43652	69024.09	3.85E-07	0549
580	S6A12_HUMAN (P48065) Sodium- and chloride-dependent betaine transporter (Na+/Cl-betaine/GABA transp	P48065	69382.38	9.89E-04	0541
581	PCY1A_HUMAN (P49585) Choline-phosphate cytidylyltransferase A (EC 2.7.7.15) (Phosphorylcholine tran	P49585	41705.8	6.56E-03	0549
582	PPM1F_HUMAN (P49593) Ca(2+)/calmodulin-dependent protein kinase phosphatase (EC 3.1.3.16) (CaM-kina	P49593	49800.19	4.81E-03	0567
583	NUMB_HUMAN (P49757) Protein numb homolog (h-Numb) (Protein S171)	P49757	70759.55	2.24E-03	0549
584	ST1E1_HUMAN (P49888) Estrogen sulfotransferase (EC 2.8.2.4) (Sulfotransferase, estrogen-preferring)	P49888	35103.59	9.33E-03	0552
585	IDH3A_HUMAN (P50213) Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial precursor (EC 1.1.	P50213	39566.1	6.27E-05	0552
586	PRELP_HUMAN (P51888) Prolargin precursor (Proline-arginine-rich end leucine-rich repeat protein)	P51888	43782.22	3.39E-03	0578
587	NUBP1_HUMAN (P53384) Nucleotide-binding protein 1 (NBP 1)	P53384	34566.41	9.03E-03	0552
588	COPB_HUMAN (P53618) Coatomer beta subunit (Beta-coat protein) (Beta-COP)	P53618	107070.8	6.87E-04	0578
589	COPA_HUMAN (P53621) Coatomer alpha subunit (Alpha-coat protein) (Alpha-COP) (HEPCOP) (HEP-COP) [Con	P53621	138243.8	5.80E-03	0571

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
590	OAZ1_HUMAN (P54368) Ornithine decarboxylase antizyme (ODC-Az)	P54368	25258.65	5.07E-04	0552
591	RD23A_HUMAN (P54725) UV excision repair protein RAD23 homolog A (hHR23A)	P54725	39584.69	6.23E-03	0574
592	CAD11_HUMAN (P55287) Cadherin-11 precursor (Osteoblast-cadherin) (OB-cadherin) (OSF-4)	P55287	87994.91	3.30E-03	0578
593	ITA1_HUMAN (P56199) Integrin alpha-1 (Laminin and collagen receptor) (VLA-1) (CD49a)	P56199	127757.1	4.11E-03	0560
594	ANTR2_HUMAN (P58335) Anthrax toxin receptor 2 precursor (Capillary morphogenesis gene 2 protein) (C	P58335	53658.2	6.76E-03	0567
595	USH3A_HUMAN (P58418) Usher syndrome type 3 protein	P58418	13412.01	4.16E-03	0549
596	NAL12_HUMAN (P59046) NACHT-, LRR- and PYD-containing protein 12 (PYRIN-containing APAF1-like protei	P59046	120095.3	7.26E-05	0552
597	RAB15_HUMAN (P59190) Ras-related protein Rab-15	P59190	24375.19	8.65E-03	0535
598	SNP25_HUMAN (P60880) Synaptosomal-associated protein 25 (SNAP-25) (Synaptosomal-associated 25 kDa p	P60880	23300.21	8.96E-04	0571
599	PSME3_HUMAN (P61289) Proteasome activator complex subunit 3 (Proteasome activator 28-gamma subunit)	P61289	29487.55	4.58E-03	0578
600	HNRPK_HUMAN (P61978) Heterogeneous nuclear ribonucleoprotein K (hnRNP K) (Transformation up-regulat	P61978	50944.43	5.90E-06	0578
601	NCS1_HUMAN (P62166) Neuronal calcium sensor 1 (NCS-1) (Frequenin homolog) (Frequenin-like protein)	P62166	21733.87	2.01E-03	0535
602	1433E_HUMAN (P62258) 14-3-3 protein epsilon (14-3-3E)	P62258	29155.42	5.71E-06	0560
603	GBB1_HUMAN (P62873) Guanine nucleotide-binding protein G(I)/G(S)/G(T) beta subunit 1 (Transducin be	P62873	37221.98	9.16E-04	0574
604	IF4G2_HUMAN (P78344) Eukaryotic translation initiation factor 4 gamma 2 (eIF-4-gamma 2) (eIF-4G 2)	P78344	102296.8	8.98E-03	0552
605	IRX4_HUMAN (P78413) Iroquois-class homeodomain protein IRX-4 (Iroquois homeobox protein 4) (Homeodo	P78413	54411.1	9.00E-03	0552
606	M3K9_HUMAN (P80192) Mitogen-activated protein kinase kinase kinase 9 (EC 2.7.1.37) (Mixed lineage k	P80192	121788.7	8.54E-04	0574
607	TSG6_HUMAN (P98066) Tumor necrosis factor-inducible protein TSG-6 precursor (TNF-stimulated gene 6	P98066	31183.3	5.22E-03	0552
608	LRP2_HUMAN (P98164) Low-density lipoprotein receptor-related protein 2 precursor (Megalin) (Glycopr	P98164	521587.6	1.10E-03	0541
609	K22O_HUMAN (Q01546) Keratin, type II cytoskeletal 2 oral (Cytokeratin-2P) (K2P) (CK 2P)	Q01546	65830.09	7.49E-03	0574
610	KIF23_HUMAN (Q02241) Kinesin-like protein KIF23 (Mitotic kinesin-like protein 1) (Kinesin-like prot	Q02241	98043.87	6.25E-03	0578
611	GNA12_HUMAN (Q03113) Guanine nucleotide-binding protein, alpha-12 subunit (G alpha 12)	Q03113	44120.41	4.17E-03	0567
612	ERCC6_HUMAN (Q03468) DNA excision repair protein ERCC-6 (Cockayne syndrome protein CSB)	Q03468	168310.9	7.25E-03	0571
613	FHR1_HUMAN (Q03591) Complement factor H-related protein 1 precursor (FHR-1) (H factor-like protein	Q03591	37636.97	6.53E-08	0535
614	K1C17_HUMAN (Q04695) Keratin, type I cytoskeletal 17 (Cytokeratin-17) (CK-17) (Keratin-17) (K17) (3	Q04695	47945.07	8.27E-04	0578
615	AK1C1_HUMAN (Q04828) Aldo-keto reductase family 1 member C1 (EC 1.1.1.—) (20-alpha-hydroxysteroid d	Q04828	36765.05	7.32E-03	0560
616	1433F_HUMAN (Q04917) 14-3-3 protein eta (Protein AS1)	Q04917	28069.98	5.34E-03	0578
617	PTN12_HUMAN (Q05209) Tyrosine-protein phosphatase, non-receptor type 12 (EC 3.1.3.48) (Protein-tyro	Q05209	88065.49	6.26E-03	0556
618	KPCZ_HUMAN (Q05513) Protein kinase C, zeta type (EC 2.7.1.37) (nPKC-zeta)	Q05513	67616.83	8.99E-05	0567
619	AMPE_HUMAN (Q07075) Glutamyl aminopeptidase (EC 3.4.11.7) (EAP) (Aminopeptidase A) (APA) (Different	Q07075	109175.6	6.99E-03	0552
620	Q07900 (Q07900) M130 antigen cytoplasmic variant 2 precursor	Q07900	125271.2	1.61E-05	0541
621	Q08357 (Q08357) Leukemia virus receptor 2 (Solute carrier family 20, member 2)	Q08357	70347.52	8.11E-03	0556
622	MFGM_HUMAN (Q08431) Lactadherin precursor (Milk fat globule-EGF factor 8) (MFG-E8) (HMFG) (Breast e	Q08431	43095.49	7.96E-04	0567
623	KIF1A_HUMAN (Q12756) Kinesin-like protein KIF1A (Axonal transporter of synaptic vesicles)	Q12756	190963.1	4.17E-03	0567
624	CHD3_HUMAN (Q12873) Chromodomain helicase-DNA-binding protein 3 (CHD-3) (Mi-2 autoantigen 240 kDa p	Q12873	220552.2	8.41E-03	0556
625	SEPR_HUMAN (Q12884) Seprase (EC 3.4.21.—) (Fibroblast activation protein alpha) (Integral membrane	Q12884	87764.87	4.65E-03	0541
626	PTN13_HUMAN (Q12923) Tyrosine-protein phosphatase, non-receptor type 13 (EC 3.1.3.48) (Protein-tyro	Q12923	276731.3	2.13E-03	0578
627	NFX1_HUMAN (Q12986) Transcriptional repressor NF-X1 (EC 6.3.2.—) (Nuclear transcription factor, X b	Q12986	123067.8	9.18E-03	0571

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
628	AKAP6_HUMAN (Q13023) A-kinase anchor protein 6 (Protein kinase A anchoring protein 6) (PRKA6) (A-ki	Q13023	256503.6	1.24E−03	0578
629	NMDE2_HUMAN (Q13224) Glutamate [NMDA] receptor subunit epsilon 2 precursor (N-methyl D-aspartate re	Q13224	166260.7	4.73E−03	0571
630	ATM_HUMAN (Q13315) Serine-protein kinase ATM (EC 2.7.1.37) (Ataxia telangiectasia mutated) (A-T, mu	Q13315	350417.1	7.00E−03	0552
631	LSAMP_HUMAN (Q13449) Limbic system-associated membrane protein precursor (LSAMP)	Q13449	37285.17	3.50E−06	0567
632	MYO9B_HUMAN (Q13459) Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	Q13459	243404.2	3.54E−03	0541
633	SNX1_HUMAN (Q13596) Sorting nexin-1	Q13596	59033.21	1.83E−03	0578
634	HRB2_HUMAN (Q13601) HIV-1 Rev-binding protein 2 (Rev-interacting protein 1) (Rip-1)	Q13601	43506.66	5.33E−03	0549
635	Q13715 (Q13715) Hypothetical protein	Q13715	26694.33	1.29E−03	0549
636	Q13876 (Q13876) Bone-derived growth factor (Fragment)	Q13876	86341.05	4.51E−03	0567
637	PEBB_HUMAN (Q13951) Core-binding factor, beta subunit (CBF-beta) (Polyomavirus enhancer binding pro	Q13951	21494.7	2.21E−03	0541
638	K0153_HUMAN (Q14166) Protein KIAA0153	Q14166	74356.21	3.83E−03	0567
639	DOCK1_HUMAN (Q14185) Dedicator of cytokinesis protein 1 (180 kDa protein downstream of CRK) (DOCK18	Q14185	215237.7	6.65E−03	0578
640	BTG3_HUMAN (Q14201) BTG3 protein (Tob5 protein) (Abundant in neuroepithelium area protein)	Q14201	29097.7	7.78E−03	0578
641	SMRA3_HUMAN (Q14527) SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfa	Q14527	113856.7	2.41E−03	0560
642	DSC3_HUMAN (Q14574) Desmocollin-3 precursor (Desmocollin-4) (HT-CP)	Q14574	99950.31	6.01E−03	0552
643	SMC1A_HUMAN (Q14683) Structural maintenance of chromosome 1-like 1 protein (SMC1alpha protein) (DXS	Q14683	143143.6	4.09E−03	0549
644	NUMA1_HUMAN (Q14980) Nuclear mitotic apparatus protein 1 (NuMA protein) (SP-H antigen)	Q14980	238128.2	8.47E−03	0552
645	Q15015 (Q15015) KIAA0155 protein (Fragment)	Q15015	135595.6	6.25E−03	0549
646	PLCB4_HUMAN (Q15147) 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase beta 4 (EC 3.1.4.11)	Q15147	134377.8	6.87E−03	0560
647	PTPRK_HUMAN (Q15262) Receptor-type tyrosine-protein phosphatase kappa precursor (EC 3.1.3.48) (Prot	Q15262	161984.1	1.51E−03	0552
648	ERBB4_HUMAN (Q15303) Receptor tyrosine-protein kinase erbB-4 precursor (EC 2.7.1.112) (p180erbB4) (	Q15303	146712.7	9.26E−03	0560
649	Q15464 (Q15464) Shb	Q15464	64485.34	4.62E−03	0552
650	TAF7_HUMAN (Q15545) Transcription initiation factor TFIID subunit 7 (Transcription initiation facto	Q15545	40234.48	8.84E−04	0556
651	PTN14_HUMAN (Q15678) Tyrosine-protein phosphatase, non-receptor type 14 (EC 3.1.3.48) (Protein-tyro	Q15678	135153.4	9.35E−04	0567
652	MYLK_HUMAN (Q15746) Myosin light chain kinase, smooth muscle and non-muscle isozymes (EC 2.7.1.117)	Q15746	210640.8	7.59E−03	0556
653	Q15751 (Q15751) P532	Q15751	531849.4	5.49E−03	0541
654	NCOA1_HUMAN (Q15788) Nuclear receptor coactivator 1 (EC 2.3.1.48) (NCoA-1) (Steroid receptor coacti	Q15788	156641.7	9.06E−03	0556
655	RK_HUMAN (Q15835) Rhodopsin kinase (EC 2.7.1.125) (RK) (G protein-coupled receptor kinase 1)	Q15835	63485.22	9.90E−03	0541
656	NTRK3_HUMAN (Q16288) NT-3 growth factor receptor precursor (EC 2.7.1.112) (Neurotrophic tyrosine ki	Q16288	94394.73	7.95E−03	0552
657	AINX_HUMAN (Q16352) Alpha-internexin (Alpha-Inx) (66 kDa neurofilament protein) (Neurofilament-66)	Q16352	55357.48	9.91E−06	0560
658	DPYL2_HUMAN (Q16555) Dihydropyrimidinase-related protein 2 (DRP-2) (Collapsin response mediator pro	Q16555	62254.68	4.35E−03	0578
659	KCC4_HUMAN (Q16566) Calcium/calmodulin-dependent protein kinase type IV (EC 2.7.1.123) (CAM kinase-	Q16566	51892.92	6.14E−03	0541
660	QPCT_HUMAN (Q16769) Glutaminyl-peptide cyclotransferase precursor (EC 2.3.2.5) (QC) (Glutaminyl-tRN	Q16769	40850.86	1.50E−05	0574
661	DDR2_HUMAN (Q16832) Discoidin domain receptor 2 precursor (EC 2.7.1.112) (Receptor protein-tyrosine	Q16832	96689.9	7.92E−03	0556
662	Q30217 (Q30217) MHC class II HLA-DRB9 (Fragment)	Q30217	10482.02	3.95E−03	0571
663	Q3Y8G9 (Q3Y8G9) Shank2E (Fragment)	Q3Y8G9	78504.73	2.27E−03	0552
664	Q4G0R3 (Q4G0R3) Zinc finger protein 553	Q4G0R3	67736.06	5.90E−03	0549
665	Q4VC04 (Q4VC04) Hypothetical protein	Q4VC04	32092.91	1.44E−03	0574
666	Q4VC34 (Q4VC34) Hypothetical protein LOC285331	Q4VC34	96569.61	3.20E−03	0574
667	Q503A8 (Q503A8) H2A histone family, member Y, isoform 3	Q503A8	39520.48	1.92E−06	0560
668	Q52LF0 (Q52LF0) Hypothetical protein KIAA1604	Q52LF0	105470.4	3.01E−03	0556
669	Q53ET0 (Q53ET0) Hypothetical protein (Fragment)	Q53ET0	73246.46	6.72E−03	0560
670	Q53FI7 (Q53FI7) Four and a half LIM domains 1 variant (Fragment)	Q53FI7	31873.79	8.89E−03	0560
671	Q53FS5 (Q53FS5) Processing of 5, ribonuclease P/MRP subunit isoform a variant (Fragment)	Q53FS5	18827.56	6.09E−03	0567

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
672	Q53GL8 (Q53GL8) Hypothetical protein (Fragment)	Q53GL8	50985.3	6.34E-03	0571
673	Q53HB9 (Q53HB9) DEAD (Asp-Glu-Ala-Asp) box polypeptide 56 variant (Fragment)	Q53HB9	61527.04	7.24E-03	0574
674	Q562R4 (Q562R4) Actin-like protein (Fragment)	Q562R4	11602.93	7.88E-03	0541
675	Q58FG0 (Q58FG0) Heat shock protein 90Ae	Q58FG0	38713.81	5.09E-03	0560
676	Q59EM4 (Q59EM4) Dipeptidyl-peptidase II variant (Fragment)	Q59EM4	41299	1.20E-06	0541
677	Q59F14 (Q59F14) Neutrophil cytosol factor 2 variant (Fragment)	Q59F14	67545.52	1.67E-03	0567
678	Q59FE2 (Q59FE2) Ketohexokinase isoform a variant (Fragment)	Q59FE2	22233.73	3.08E-03	0549
679	Q59FF3 (Q59FF3) RUN and FYVE domain-containing 1 variant (Fragment)	Q59FF3	35416.27	9.36E-03	0552
680	Q59FH8 (Q59FH8) Diaphanous 1 variant (Fragment)	Q59FH8	143694.7	3.46E-03	0560
681	Q59FM2 (Q59FM2) PWP2 periodic tryptophan protein homolog (Fragment)	Q59FM2	33469.2	2.68E-03	0552
682	Q59H20 (Q59H20) Hypothetical protein hypothetical protein FLJ21019 variant (Fragment)	Q59H20	84815.45	8.36E-03	0571
683	Q5FBB4 (Q5FBB4) Shugoshin-like protein 1, transcript variant C1 (Shugoshin 1AB protein)	Q5FBB4	29414.54	4.81E-03	0571
684	Q5H9B9 (Q5H9B9) BMP2 inducible kinase-like (Fragment)	Q5H9B9	45747.61	9.00E-03	0535
685	Q5JQM8 (Q5JQM8) Complement component 4A	Q5JQM8	192663.6	2.32E-07	0556
686	Q5JR12 (Q5JR12) Novel protein	Q5JR12	54799.88	7.16E-03	0556
687	Q5JR20 (Q5JR20) Deleted in malignant brain tumors 1	Q5JR20	260464.6	1.08E-06	0552
688	Q5JR58 (Q5JR58) Glyceraldehyde 3-phosphate dehydrogenase (GAPDH)	Q5JR58	36686.48	4.72E-03	0560
689	Q5JRA5 (Q5JRA5) C219-reactive peptide (FLJ39207)	Q5JRA5	56548.96	9.28E-03	0571
690	KCNT1_HUMAN (Q5JUK3) Potassium channel subfamily T member 1 (KCa4.1)	Q5JUK3	138254.3	4.00E-03	0571
691	Q5JUN8 (Q5JUN8) Protein kinase C, theta (Fragment)	Q5JUN8	55350.32	3.63E-03	0571
692	Q5JVG2 (Q5JVG2) Zinc finger protein 484	Q5JVG2	98157.78	7.77E-03	0552
693	Q5JYA3 (Q5JYA3) Methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1-like (Fragment)	Q5JYA3	12417.52	3.22E-03	0560
694	Q5JZ84 (Q5JZ84) OTTHUMP00000028514 (Fragment)	Q5JZ84	83801.98	1.58E-04	0549
695	Q5NV92 (Q5NV92) V5-6 protein (Fragment)	Q5NV92	10567.04	2.66E-05	0535
696	Q5QGN2 (Q5QGN2) HSPC069 isoform b	Q5QGN2	135851	2.88E-03	0541
697	Q5RI13 (Q5RI13) Novel protein (FLJ36760)	Q5RI13	68256	5.57E-03	0556
698	Q5SW71 (Q5SW71) Novel protein	Q5SW71	15510.08	1.16E-03	0556
699	Q5T3P5 (Q5T3P5) Lectin, galactoside-binding, soluble, 8 (Galectin 8)	Q5T3P5	40371.93	7.60E-03	0567
700	Q5T3U5 (Q5T3U5) ATP-binding cassette, sub-family C (CFTR/MRP), member 10	Q5T3U5	161526.7	7.82E-03	0541
701	Q5T583 (Q5T583) Filaggrin	Q5T583	434921.4	3.44E-03	0574
702	Q5T7V5 (Q5T7V5) OTTHUMP00000021437 (Fragment)	Q5T7V5	32396.05	3.45E-05	0552
703	Q5TAT4 (Q5TAT4) Collagen, type XIII, alpha 1	Q5TAT4	66335.54	5.68E-03	0552
704	Q5TGZ2 (Q5TGZ2) Neuroblastoma, suppression of tumorigenicity 1	Q5TGZ2	19395.18	1.19E-08	0574
705	Q5TI99 (Q5TI99) HBxAg transactivated protein 2 (XTP2)	Q5TI99	295818.6	2.64E-03	0541
706	Q5UE57 (Q5UE57) Alcadein beta	Q5UE57	106966	2.12E-03	0541
707	RIF1_HUMAN (Q5UIP0) Telomere-associated protein RIF1 (Rap1-interacting factor 1 homolog)	Q5UIP0	274293	3.33E-03	0571
708	Q5VSR9 (Q5VSR9) Novel protein similar to Gorilla gorilla SPANX N member 1 (SPANX-N1)	Q5VSR9	8257.914	2.10E-03	0574
709	Q5VUL6 (Q5VUL6) Filamin A interacting protein 1	Q5VUL6	127127.2	5.43E-03	0567
710	Q5VV35 (Q5VV35) Sarcomeric protein myopalladin, 145 kDa (MYOP)	Q5VV35	145166.5	5.43E-03	0571
711	Q5VV84 (Q5VV84) Protein tyrosine phosphatase, receptor type, f polypeptide (PTPRF), interacting pro	Q5VV84	134709.6	7.99E-03	0578
712	Q5VXU2 (Q5VXU2) Propionyl Coenzyme A carboxylase, alpha polypeptide	Q5VXU2	80235.37	4.21E-03	0556
713	CI084_HUMAN (Q5VXU9) Hypothetical protein C9orf84	Q5VXU9	165096.9	1.90E-04	0541
714	Q5VYV7 (Q5VYV7) OTTHUMP00000030279	Q5VYV7	45523.54	6.48E-03	0578
715	Q5VZ60 (Q5VZ60) SMC5 structural maintenance of chromosomes 5-like 1 (Yeast)	Q5VZ60	128725.4	9.63E-03	0535
716	Q5VZP5 (Q5VZP5) Novel protein	Q5VZP5	130096	1.22E-03	0574
717	Q5VZV4 (Q5VZV4) OTTHUMP00000021537	Q5VZV4	19621.98	1.41E-03	0574
718	Q5W025 (Q5W025) Breast cancer antigen NY-BR-1	Q5W025	152577.7	3.02E-03	0567
719	Q64FX8 (Q64FX8) AKNA transcript D	Q64FX8	155043.7	6.17E-03	0560
720	Q66K66 (Q66K66) Similar to RIKEN cDNA A230078I05 gene	Q66K66	39449.22	9.20E-04	0556
721	Q66K74 (Q66K74) BPY2 interacting protein 1	Q66K74	112158.2	1.08E-03	0549
722	Q68BL7 (Q68BL7) Photomedin-1	Q68BL7	73008.82	3.36E-03	0578
723	Q68CR1 (Q68CR1) Hypothetical protein DKFZp781J1697	Q68CR1	125119.3	6.96E-03	0574
724	Q68CZ6 (Q68CZ6) Hypothetical protein DKFZp686I1868	Q68CZ6	69606.88	5.97E-03	0560
725	Q68DN6 (Q68DN6) Hypothetical protein DKFZp781D1923	Q68DN6	196563.1	2.98E-03	0552
726	Q68DS5 (Q68DS5) Hypothetical protein DKFZp686L17246	Q68DS5	75999.35	9.04E-03	0560
727	Q68DX7 (Q68DX7) Hypothetical protein DKFZp686E0722 (Fragment)	Q68DX7	238959.4	7.57E-03	0552
728	Q695L1 (Q695L1) Striated muscle preferentially expressed protein (Fragment)	Q695L1	335326.6	3.70E-03	0549

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
729	Q6AI27 (Q6AI27) Hypothetical protein DKFZp686D19113	Q6AI27	18340.52	9.00E−03	0552
730	Q6GMX5 (Q6GMX5) IGHM protein	Q6GMX5	65263.74	4.28E−11	0571
731	Q6IA35 (Q6IA35) TOE1 protein	Q6IA35	56542.05	1.06E−03	0560
732	Q6IEW7 (Q6IEW7) Olfactory receptor OR11-318	Q6IEW7	36363.73	5.13E−03	0560
733	Q6IFC7 (Q6IFC7) Olfactory receptor OR11-178	Q6IFC7	38321	7.40E−03	0571
734	Q6IPW0 (Q6IPW0) FLJ10404 protein (Fragment)	Q6IPW0	53802.47	1.90E−03	0541
735	Q6IQ38 (Q6IQ38) USP36 protein	Q6IQ38	122732.4	1.53E−03	0541
736	Q6MZQ6 (Q6MZQ6) Hypothetical protein DKFZp686G11190	Q6MZQ6	52010	2.21E−05	0535
737	Q6N041 (Q6N041) Hypothetical protein DKFZp686O16217 (Fragment)	Q6N041	54090.52	6.94E−05	0571
738	Q6NW26 (Q6NW26) KCTD18 protein	Q6NW26	46707.95	4.66E−03	0556
739	Q6NW33 (Q6NW33) KRT19 protein (Fragment)	Q6NW33	46179.44	1.14E−04	0552
740	Q6NXG6 (Q6NXG6) NUP210 protein	Q6NXG6	105744	8.93E−03	0567
741	Q6P5Q7 (Q6P5Q7) LOC493860 protein	Q6P5Q7	45455.3	9.77E−03	0541
742	Q6P6A7 (Q6P6A7) LOC152217 protein (Hypothetical protein DKFZp762I1415)	Q6P6A7	10884	7.46E−03	0541
743	Q6P714 (Q6P714) Hypothetical protein	Q6P714	7455.124	3.48E−03	0541
744	Q6PJ04 (Q6PJ04) DKFZP434H0115 protein	Q6PJ04	33022.06	5.07E−04	0541
745	Q6PJQ5 (Q6PJQ5) Forkhead box R2	Q6PJQ5	35901.31	5.28E−03	0560
746	Q6QNJ9 (Q6QNJ9) Steroid acute regulatory protein (Fragment)	Q6QNJ9	3219.632	4.26E−03	0574
747	Q6TXQ4 (Q6TXQ4) H3L-like histone (Fragment)	Q6TXQ4	12096.65	1.69E−07	0560
748	ANR12_HUMAN (Q6UB98) Ankyrin repeat domain protein 12 (Ankyrin repeat-containing cofactor 2) (GAC-1	Q6UB98	235518.9	6.66E−03	0567
749	Q6UTX4 (Q6UTX4) Hypothetical protein	Q6UTX4	32526.76	6.91E−04	0549
750	ARSK_HUMAN (Q6UWY0) Arylsulfatase K precursor (EC 3.1.6.—) (ASK) (Telethon sulfatase)	Q6UWY0	61411.18	8.34E−03	0556
751	Q6UXE9 (Q6UXE9) EQYK340	Q6UXE9	94970.7	2.31E−03	0571
752	Q6V0I7 (Q6V0I7) Fat-like cadherin FATJ protein	Q6V0I7	350970.7	3.36E−03	0574
753	Q6ZMY0 (Q6ZMY0) Hypothetical protein FLJ16598	Q6ZMY0	150875.1	2.71E−03	0549
754	Q6ZMY7 (Q6ZMY7) Hypothetical protein FLJ16577	Q6ZMY7	30088.58	7.13E−03	0571
755	Q6ZN00 (Q6ZN00) Hypothetical protein FLJ16553	Q6ZN00	21580.88	5.42E−03	0541
756	Q6ZN07 (Q6ZN07) Hypothetical protein FLJ16540	Q6ZN07	56924.62	2.37E−03	0549
757	FGD5_HUMAN (Q6ZNL6) FYVE, RhoGEF and PH domain containing protein 5 (Zinc finger FYVE domain contai	Q6ZNL6	159806.6	5.65E−03	0567
758	Q6ZR22 (Q6ZR22) Hypothetical protein FLJ46715	Q6ZR22	148787.5	6.45E−03	0567
759	Q6ZR59 (Q6ZR59) Hypothetical protein FLJ46623	Q6ZR59	14124.17	7.53E−03	0549
760	Q6ZRB9 (Q6ZRB9) Hypothetical protein FLJ46489	Q6ZRB9	27860.95	7.73E−03	0535
761	Q6ZRF6 (Q6ZRF6) Hypothetical protein FLJ46386	Q6ZRF6	21524.64	1.11E−03	0567
762	Q6ZRG5 (Q6ZRG5) Hypothetical protein FLJ46369	Q6ZRG5	24107.1	7.11E−04	0541
763	Q6ZRJ1 (Q6ZRJ1) Hypothetical protein FLJ46323	Q6ZRJ1	111189.1	4.80E−04	0556
764	Q6ZRR7 (Q6ZRR7) Hypothetical protein FLJ46156	Q6ZRR7	128052.8	5.12E−03	0560
765	Q6ZRV2 (Q6ZRV2) Hypothetical protein FLJ46072	Q6ZRV2	94258.88	5.38E−03	0574
766	Q6ZRZ7 (Q6ZRZ7) Hypothetical protein FLJ45950	Q6ZRZ7	14798.13	7.18E−03	0552
767	Q6ZRZ8 (Q6ZRZ8) CDNA FLJ45949 fis, clone PLACE7007973	Q6ZRZ8	54349.71	7.27E−03	0571
768	Q6ZST2 (Q6ZST2) Hypothetical protein FLJ45231	Q6ZST2	14400.26	2.83E−03	0556
769	Q6ZT81 (Q6ZT81) Hypothetical protein FLJ44884	Q6ZT81	25240.86	5.58E−04	0541
770	Q6ZTK3 (Q6ZTK3) Hypothetical protein FLJ44574	Q6ZTK3	110872	5.85E−03	0578
771	Q6ZUD4 (Q6ZUD4) Hypothetical protein FLJ43798	Q6ZUD4	15462.47	6.23E−03	0578
772	Q6ZVG1 (Q6ZVG1) Hypothetical protein FLJ42621	Q6ZVG1	78363.38	4.81E−03	0541
773	Q6ZVT0 (Q6ZVT0) Hypothetical protein FLJ42131	Q6ZVT0	74946.23	2.71E−03	0541
774	TBA3_HUMAN (Q71U36) Tubulin alpha-3 chain (Alpha-tubulin 3) (Tubulin B-alpha-1)	Q71U36	50103.65	2.47E−03	0552
775	MARK2_HUMAN (Q7KZI7) Serine/threonine-protein kinase MARK2 (EC 2.7.1.37) (MAP/microtubule affinity-	Q7KZI7	87855.99	7.95E−03	0578
776	CHST3_HUMAN (Q7LGC8) Carbohydrate sulfotransferase 3 (EC 2.8.2.17) (Chondroitin 6-sulfotransferase)	Q7LGC8	54638.37	3.38E−03	0560
777	Q7RTR4 (Q7RTR4) NOD16	Q7RTR4	119351.7	5.77E−03	0560
778	Q7RTS7 (Q7RTS7) Keratin 5c	Q7RTS7	59333.45	7.49E−03	0574
779	Q7Z353 (Q7Z353) Hypothetical protein DKFZp686K21156	Q7Z353	77157.85	1.10E−03	0549
780	Q7Z374 (Q7Z374) Hypothetical protein DKFZp686C02218 (Fragment)	Q7Z374	53741.82	2.73E−12	0571
781	Q7Z379 (Q7Z379) Hypothetical protein DKFZp686K04218 (Fragment)	Q7Z379	51587.73	8.88E−04	0560
782	Q7Z3E7 (Q7Z3E7) Hypothetical protein DKFZp686K091	Q7Z3E7	245494.7	2.29E−03	0552
783	Q7Z3I3 (Q7Z3I3) Hypothetical protein DKFZp686F07114	Q7Z3I3	123251.3	2.63E−03	0567
784	Q7Z3Q5 (Q7Z3Q5) Hypothetical protein DKFZp313G216	Q7Z3Q5	57159.47	2.63E−03	0574
785	Q7Z431 (Q7Z431) Putative NFkB activating protein	Q7Z431	39758.47	3.81E−03	0560
786	GLT15_HUMAN (Q7Z4T8) Probable N-acetylgalactosaminyltransferase 15 (EC 2.4.1.—) (Protein-UDP acetyl	Q7Z4T8	51447.66	7.55E−03	0574
787	CN029_HUMAN (Q7Z5M8) Protein C14orf29	Q7Z5M8	40749.98	6.91E−03	0567
788	Q7Z5R6 (Q7Z5R6) Amyloid beta (A4) protein-binding, family B, member 1 interacting protein	Q7Z5R6	73137.02	8.83E−03	0560
789	Q7Z6B9 (Q7Z6B9) ZNF618 protein (Fragment)	Q7Z6B9	96694.38	2.86E−03	0552

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
790	GRASP_HUMAN (Q7Z6J2) General receptor for phosphoinositides 1-associated scaffold protein (GRP1-ass	Q7Z6J2	42597.13	9.65E-04	0574
791	Q86T80 (Q86T80) Hypothetical protein DKFZp451M0318	Q86T80	40591.57	1.39E-03	0549
792	TTC6_HUMAN (Q86TZ1) Tetratricopeptide repeat protein 6 (TPR repeat protein 6)	Q86TZ1	59340.45	4.63E-03	0552
793	Q86UP3 (Q86UP3) Zinc finger homeodomain 4 protein	Q86UP3	393481.6	5.15E-03	0567
794	Q86UW7 (Q86UW7) Ca2+-dependent activator protein for secretion 2	Q86UW7	147548.8	6.37E-05	0560
795	IQGA3_HUMAN (Q86VI3) Ras GTPase-activating-like protein IQGAP3	Q86VI3	184430.7	4.73E-03	0552
796	Q86WM1 (Q86WM1) Zinc finger protein ZNF284 (Fragment)	Q86WM1	23565.48	4.66E-03	0578
797	Q86WN2 (Q86WN2) Interferon epsilon-1 (Interferon-epsilon)	Q86WN2	24398.87	2.14E-03	0552
798	ZN227_HUMAN (Q86WZ6) Zinc finger protein 227	Q86WZ6	91973.55	3.55E-03	0578
799	Q86Y06 (Q86Y06) Sister-of-mammalian grainyhead isoform 1	Q86Y06	68275.58	4.30E-03	0571
800	GPR97_HUMAN (Q86Y34) Probable G-protein coupled receptor 97 precursor (G-protein coupled receptor P	Q86Y34	60821.61	3.61E-03	0552
801	XYLT1_HUMAN (Q86Y38) Xylosyltransferase 1 (EC 2.4.2.26) (Xylosyltransferase I) (XylT-I) (XT-I) (Pep	Q86Y38	107501.6	9.95E-03	0541
802	Q86YK7 (Q86YK7) Heat shock regulated-1	Q86YK7	222995.4	5.99E-03	0574
803	Q8IU65 (Q8IU65) Axonemal dynein heavy chain 8 isoform 2 (Axonemal dynein heavy chain 8 isoform 3) (	Q8IU65	23934.03	9.23E-03	0556
804	Q8IXR4 (Q8IXR4) LOC388906 protein (Fragment)	Q8IXR4	23682.2	6.65E-03	0567
805	Q8IY89 (Q8IY89) FLJ21062 protein	Q8IY89	25602.36	3.70E-03	0552
806	ZN440_HUMAN (Q8IYI8) Zinc finger protein 440	Q8IYI8	69060.77	3.73E-03	0549
807	Q8IZA4 (Q8IZA4) ELYS transcription factor-like protein TMBS62	Q8IZA4	256022.6	1.35E-03	0567
808	CN039_HUMAN (Q8N1H7) Hypothetical protein C14orf39	Q8N1H7	68199.46	9.14E-03	0552
809	Q8N392 (Q8N392) Hypothetical protein DKFZp762I167	Q8N392	74900.02	9.10E-03	0560
810	Q8N393 (Q8N393) Hypothetical protein DKFZp762I137	Q8N393	89778.09	3.80E-03	0567
811	MILK1_HUMAN (Q8N3F8) Molecule interacting with Rab13 (MIRab13) (MICAL-like protein 1)	Q8N3F8	93383.18	3.21E-03	0535
812	Q8N3I3 (Q8N3I3) Hypothetical protein DKFZp761P18121	Q8N3I3	81550.7	1.87E-03	0552
813	Q8N4J6 (Q8N4J6) KIAA1205 protein (Fragment)	Q8N4J6	65079.45	3.22E-03	0541
814	Q8N4L2 (Q8N4L2) Hypothetical protein TMEM55A	Q8N4L2	28062.26	4.65E-03	0578
815	Q8N549 (Q8N549) Hypothetical protein C8orf36	Q8N549	27915	5.67E-03	0556
816	Q8N5C6 (Q8N5C6) FLJ10379 protein	Q8N5C6	69669.68	3.13E-04	0552
817	LZTR1_HUMAN (Q8N653) Leucine-zipper-like transcriptional regulator 1 (LZTR-1)	Q8N653	94658.3	2.08E-03	0556
818	Q8N6E7 (Q8N6E7) KIAA1430 protein	Q8N6E7	50506.21	3.91E-04	0556
819	Q8N780 (Q8N780) Hypothetical protein FLJ25943	Q8N780	33347.2	7.92E-03	0535
820	Q8N7A6 (Q8N7A6) Hypothetical protein FLJ25862	Q8N7A6	21106.6	1.15E-03	0549
821	Q8N7S0 (Q8N7S0) Hypothetical protein FLJ40424	Q8N7S0	13945.2	8.51E-03	0541
822	Q8N819 (Q8N819) Hypothetical protein FLJ40125	Q8N819	37141.55	4.13E-03	0552
823	Q8N853 (Q8N853) Hypothetical protein FLJ40006	Q8N853	18183.24	1.02E-03	0574
824	Q8N8V3 (Q8N8V3) Hypothetical protein FLJ38820	Q8N8V3	20250.83	5.60E-03	0567
825	Q8N905 (Q8N905) Hypothetical protein FLJ38620	Q8N905	42098.63	5.67E-04	0549
826	Q8N951 (Q8N951) Hypothetical protein FLJ38360	Q8N951	48744.87	3.01E-03	0567
827	Q8NA95 (Q8NA95) Hypothetical protein FLJ35725	Q8NA95	41300.77	2.84E-03	0560
828	SMYD1_HUMAN (Q8NB12) SET and MYND domain containing protein 1	Q8NB12	56579.95	6.20E-03	0549
829	UBP38_HUMAN (Q8NB14) Ubiquitin carboxyl-terminal hydrolase 38 (EC 3.1.2.15) (Ubiquitin thiolesteras	Q8NB14	116472.1	1.24E-03	0549
830	S4A11_HUMAN (Q8NBS3) Sodium bicarbonate transporter-like protein 11 (Bicarbonate transporter-relate	Q8NBS3	99517.14	6.08E-03	0560
831	SCPDH_HUMAN (Q8NBX0) Probable saccharopine dehydrogenase (EC 1.5.1.9)	Q8NBX0	47121.48	6.82E-03	0541
832	Q8NC98 (Q8NC98) Hypothetical protein FLJ90397	Q8NC98	36994.11	4.44E-03	0549
833	Q8ND50 (Q8ND50) Hypothetical protein DKFZp547N203 (Fragment)	Q8ND50	105208.9	1.39E-06	0541
834	Q8NDA2 (Q8NDA2) Hypothetical protein DKFZp434P0216 (Fragment)	Q8NDA2	143799.3	3.16E-03	0560
835	ABCF1_HUMAN (Q8NE71) ATP-binding cassette sub-family F member 1 (ATP-binding cassette 50) (TNF-alph	Q8NE71	95866.58	1.91E-03	0535
836	NFAM1_HUMAN (Q8NET5) NFAT activation molecule 1 precursor (Calcineurin/NFAT-activating ITAM-contain	Q8NET5	29667.17	5.08E-03	0541
837	Q8NF06 (Q8NF06) FLJ00398 protein (Fragment)	Q8NF06	72000.41	8.89E-03	0552
838	SYNE1_HUMAN (Q8NF91) Nesprin-1 (Nuclear envelope spectrin repeat protein 1) (Synaptic nuclear envel	Q8NF91	1010433	4.94E-03	0552
839	VMDL1_HUMAN (Q8NFU1) Bestrophin-2 (Vitelliform macular dystrophy 2-like protein 1)	Q8NFU1	57101.98	3.93E-03	0535
840	Q8NFY8 (Q8NFY8) Neuroblastoma-amplified protein	Q8NFY8	268295.4	3.08E-03	0560
841	NLGN2_HUMAN (Q8NFZ4) Neuroligin-2 precursor	Q8NFZ4	90763.22	6.71E-04	0574
842	OR6M1_HUMAN (Q8NGM8) Olfactory receptor 6M1 (Olfactory receptor OR11-271)	Q8NGM8	35304.85	5.61E-03	0541
843	GP150_HUMAN (Q8NGU9) Probable G-protein coupled receptor 150	Q8NGU9	46323.67	5.89E-04	0578

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
844	WDR36_HUMAN (Q8NI36) WD-repeat protein 36 (T-cell activation WD repeat protein) (TA-WDRP)	Q8NI36	105255.2	4.25E-03	0552
845	Q8TAL6 (Q8TAL6) Hypothetical protein LOC387758 (Hypothetical protein HEMBA1007053)	Q8TAL6	24257.93	5.39E-03	0541
846	TIP_HUMAN (Q8TB96) T-cell immunomodulatory protein precursor (TIP protein)	Q8TB96	68064.6	5.32E-05	0552
847	Q8TBY0 (Q8TBY0) Hypothetical protein MGC27016	Q8TBY0	59984.24	7.31E-03	0578
848	Q8TBY6 (Q8TBY6) MGC26597 protein	Q8TBY6	56738.82	6.82E-03	0541
849	Q8TCM1 (Q8TCM1) Hypothetical protein DKFZp547K059	Q8TCM1	85774.15	9.30E-03	0552
850	Q8TD57 (Q8TD57) Axonemal heavy chain dynein type 3	Q8TD57	470467.1	8.03E-03	0556
851	Q8TDP0 (Q8TDP0) Apical protein 2	Q8TDP0	90246	8.44E-03	0574
852	LMX1A_HUMAN (Q8TE12) LIM homeobox transcription factor 1 alpha (LIM/homeobox protein LMX1A) (LIM-ho	Q8TE12	42719.79	1.26E-03	0549
853	ATS16_HUMAN (Q8TE57) ADAMTS-16 precursor (EC 3.4.24.—) (A disintegrin and metalloproteinase with th	Q8TE57	136098.1	7.41E-03	0549
854	ATS15_HUMAN (Q8TE58) ADAMTS-15 precursor (EC 3.4.24.—) (A disintegrin and metalloproteinase with th	Q8TE58	103220.4	3.54E-03	0574
855	Q8TF44 (Q8TF44) KIAA1957 protein (Fragment)	Q8TF44	51192.71	9.00E-03	0574
856	Q8WTR8 (Q8WTR8) Hypothetical protein LOC126147	Q8WTR8	53139.27	7.76E-04	0535
857	NU133_HUMAN (Q8WUM0) Nuclear pore complex protein Nup133 (Nucleoporin Nup133) (133 kDa nucleoporin)	Q8WUM0	128931.9	6.66E-03	0549
858	HNRLL_HUMAN (Q8WVV9) Heterogeneous nuclear ribonucleoprotein L-like (Stromal RNA-regulating factor)	Q8WVV9	60044.95	1.76E-03	0556
859	PCNP_HUMAN (Q8WW12) PEST-containing nuclear protein (PCNP)	Q8WW12	18913.4	6.54E-04	0541
860	FOG2_HUMAN (Q8WW38) Zinc finger protein ZFPM2 (Zinc finger protein multitype 2) (Friend of GATA pro	Q8WW38	128061.4	1.37E-04	0571
861	Q8WWF6 (Q8WWF6) Hypothetical protein HCG3 (Hypothetical protein tmp_locus_21)	Q8WWF6	16548.14	4.34E-03	0552
862	ATX2L_HUMAN (Q8WWM7) Ataxin-2-like protein (Ataxin-2 domain protein) (Ataxin-2-related protein)	Q8WWM7	113303.8	4.89E-03	0560
863	ASB12_HUMAN (Q8WXK4) Ankyrin repeat and SOCS box protein 12 (ASB-12)	Q8WXK4	33921.47	2.64E-04	0541
864	Q8WXQ5 (Q8WXQ5) Serine/threonine protein kinase kkialre-like 1	Q8WXQ5	108892.4	9.25E-03	0578
865	Q8WXX0 (Q8WXX0) Ciliary dynein heavy chain 7	Q8WXX0	460845.6	6.97E-03	0541
866	Q8WY12 (Q8WY12) B lymphocyte activation-related protein (Transcription elongation factor A (SII)-li	Q8WY12	40553.01	8.90E-03	0549
867	Q8WZ93 (Q8WZ93) NAG11	Q8WZ93	9833.928	4.21E-03	0560
868	GBF1_HUMAN (Q92538) Golgi-specific brefeldin A-resistance guanine nucleotide exchange factor 1 (BFA	Q92538	206313.1	5.67E-03	0578
869	TIC2_HUMAN (Q92563) Testican-2 precursor (SPARC/osteonectin, CWCV, and Kazal-like domains proteogly	Q92563	46748.9	1.09E-04	0541
870	RT31_HUMAN (Q92665) 28S ribosomal protein S31, mitochondrial precursor (S31mt) (MRP-S31) (Imogen 38	Q92665	45272.55	5.95E-03	0541
871	PVR2_HUMAN (Q92692) Poliovirus receptor related protein 2 precursor (Herpes virus entry mediator B)	Q92692	57706.01	8.45E-03	0571
872	CBP_HUMAN (Q92793) CREB-binding protein (EC 2.3.1.48)	Q92793	265166	2.79E-03	0556
873	PTPR2_HUMAN (Q92932) Receptor-type tyrosine-protein phosphatase N2 precursor (EC 3.1.3.48) (R-PTP-N	Q92932	111212.2	9.78E-04	0556
874	Q92954 (Q92954) Megakaryocyte stimulating factor	Q92954	150997.2	3.09E-03	0556
875	USP9X_HUMAN (Q93008) Probable ubiquitin carboxyl-terminal hydrolase FAF-X (EC 3.1.2.15) (Ubiquitin	Q93008	289354.6	1.75E-03	0552
876	BHMT_HUMAN (Q93088) Betaine-homocysteine S-methyltransferase (EC 2.1.1.5)	Q93088	44941.84	5.57E-03	0552
877	Q969F2 (Q969F2) Dvl-binding protein NKD2 (Naked cuticle-2)	Q969F2	50024.88	5.30E-03	0578
878	KIFC2_HUMAN (Q96AC6) Kinesin-like protein KIFC2	Q96AC6	90091.98	8.85E-03	0541
879	TTC17_HUMAN (Q96AE7) Tetratricopeptide repeat protein 17 (TPR repeat protein 17)	Q96AE7	129476.8	3.84E-03	0574
880	Q96BE9 (Q96BE9) CDK4 protein	Q96BE9	11993.24	5.74E-03	0552
881	SYTL4_HUMAN (Q96C24) Synaptotagmin-like protein 4 (Exophilin-2) (Granuphilin)	Q96C24	75961.86	6.03E-03	0552
882	Q96CM8 (Q96CM8) Hypothetical protein FLJ20920	Q96CM8	68122.89	3.83E-03	0541
883	Q96DB1 (Q96DB1) TALDO1 protein	Q96DB1	35306.46	9.85E-03	0578
884	Q96ES7 (Q96ES7) Hypothetical protein LOC112869	Q96ES7	33217.24	9.31E-03	0552
885	Q96FI6 (Q96FI6) Enhancer of zeste 2, isoform a	Q96FI6	85962.88	1.62E-03	0578
886	CPNE2_HUMAN (Q96FN4) Copine-2 (Copine II)	Q96FN4	61150.76	3.05E-03	0541
887	Q96G34 (Q96G34) DC12 protein	Q96G34	40535.21	3.58E-03	0552
888	Q96JG3 (Q96JG3) KIAA1864 protein (Fragment)	Q96JG3	75937.59	8.79E-04	0556
889	Q96JI8 (Q96JI8) KIAA1839 protein (Fragment)	Q96JI8	61235.62	2.21E-04	0571
890	BT2A3_HUMAN (Q96KV6) Butyrophilin subfamily 2 member A3 precursor	Q96KV6	63346.8	8.73E-04	0560
891	Q96LM3 (Q96LM3) Hypothetical protein FLJ25373	Q96LM3	46043.74	8.00E-04	0552
892	Q96LM6 (Q96LM6) Hypothetical protein FLJ25369	Q96LM6	20601.17	2.00E-04	0549

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
893	Q96MA6 (Q96MA6) Hypothetical protein FLJ32704 (Chromosome 9 open reading frame 98) (OTTHUMP00000022	Q96MA6	54890.73	1.41E−03	0549
894	YH01_HUMAN (Q96MG8) Hypothetical protein FLJ32390/DKFZp686L23117	Q96MG8	40648.61	3.78E−03	0567
895	PGRP2_HUMAN (Q96PD5) N-acetylmuramoyl-L-alanine amidase precursor (EC 3.5.1.28) (Peptidoglycan reco	Q96PD5	62178	1.31E−05	0556
896	Q96Q34 (Q96Q34) ALS2CR13 protein (Fragment)	Q96Q34	21396.12	9.02E−03	0571
897	Q96RY5 (Q96RY5) Hypothetical protein KIAA1426	Q96RY5	169729.5	1.45E−04	0541
898	Q96S02 (Q96S02) Hypothetical protein gs80	Q96S02	25483.99	4.56E−03	0552
899	Q96S07 (Q96S07) Hypothetical protein gs64	Q96S07	40973.07	2.06E−03	0567
900	TESK2_HUMAN (Q96S53) Dual specificity testis-specific protein kinase 2 (EC 2.7.1.37) (EC 2.7.1.112)	Q96S53	63599.28	3.27E−03	0574
901	CCNL2_HUMAN (Q96S94) Cyclin-L2 (Paneth cell enhanced expression protein)	Q96S94	58111.48	2.23E−03	0571
902	FIZ1_HUMAN (Q96SL8) Flt3-interacting zinc finger protein 1	Q96SL8	51960.49	2.18E−03	0571
903	SCN2A_HUMAN (Q99250) Sodium channel protein type II alpha subunit (Voltage-gated sodium channel alp	Q99250	227825.1	1.94E−03	0549
904	Q99463 (Q99463) Y6 encoding protein	Q99463	33158.45	7.65E−03	0552
905	SDF2_HUMAN (Q99470) Stromal cell-derived factor 2 precursor (SDF-2)	Q99470	23154.53	2.53E−03	0549
906	NEUS_HUMAN (Q99574) Neuroserpin precursor (Serpin I1) (Protease inhibitor 12)	Q99574	46397.2	5.41E−04	0567
907	ABCA3_HUMAN (Q99758) ATP-binding cassette sub-family A member 3 (ATP-binding cassette transporter 3	Q99758	191263.9	6.35E−03	0552
908	Q99777 (Q99777) Hypothetical protein (Fragment)	Q99777	14098.42	5.87E−03	0552
909	TIG2_HUMAN (Q99969) Retinoic acid receptor responder protein 2 precursor (Tazarotene-induced gene 2	Q99969	18605.75	1.02E−06	0567
910	Q9BQ75 (Q9BQ75) Hypothetical protein MGC4308	Q9BQ75	31791.96	8.74E−03	0541
911	MBB1A_HUMAN (Q9BQG0) Myb-binding protein 1A	Q9BQG0	148761.2	4.19E−04	0541
912	Q9BR99 (Q9BR99) Hypothetical protein LOC115648	Q9BR99	11621.78	3.35E−03	0549
913	Q9BX32 (Q9BX32) OTTHUMP00000030312 (Fragment)	Q9BX32	11352.71	4.49E−03	0567
914	GPR91_HUMAN (Q9BXA5) Probable G-protein coupled receptor 91 (P2Y purinoceptor 1-like)	Q9BXA5	38258.2	6.04E−03	0574
915	TSSK1_HUMAN (Q9BXA7) Testis-specific serine/threonine-protein kinase 1 (EC 2.7.1.37) (TSSK-1) (Test	Q9BXA7	41591.27	4.61E−03	0541
916	RFIP5_HUMAN (Q9BXF6) Rab11 family-interacting protein 5 (Rab11-FIP5) (Rab11-interacting protein Rip	Q9BXF6	70372.12	6.40E−03	0574
917	TX13A_HUMAN (Q9BXU3) Testis-expressed sequence 13A protein	Q9BXU3	45554.41	6.65E−03	0556
918	CT043_HUMAN (Q9BY42) Protein C20orf43	Q9BY42	33833.23	7.56E−03	0571
919	Q9BZT1 (Q9BZT1) PNAS-101	Q9BZT1	16324.19	2.85E−03	0535
920	Q9C0D7 (Q9C0D7) KIAA1726 protein (Fragment)	Q9C0D7	70689.04	7.02E−03	0535
921	AICDA_HUMAN (Q9GZX7) Activation-induced cytidine deaminase (EC 3.5.4.5) (Cytidine aminohydrolase)	Q9GZX7	23938.14	9.54E−03	0535
922	ADA19_HUMAN (Q9H013) ADAM 19 precursor (EC 3.4.24.—) (A disintegrin and metalloproteinase domain 19	Q9H013	104970.3	4.24E−03	0549
923	Q9H0M5 (Q9H0M5) Hypothetical protein DKFZp434I1610	Q9H0M5	86175.93	6.24E−03	0571
924	CCDC8_HUMAN (Q9H0W5) Coiled-coil domain containing protein 8	Q9H0W5	59367.06	7.08E−03	0578
925	KCNH6_HUMAN (Q9H252) Potassium voltage-gated channel subfamily H member 6 (Voltage-gated potassium	Q9H252	109855.1	5.53E−03	0535
926	ATS10_HUMAN (Q9H324) ADAMTS-10 precursor (EC 3.4.24.—) (A disintegrin and metalloproteinase with th	Q9H324	117996.6	7.01E−03	0574
927	Q9H3M9 (Q9H3M9) Homo sapiens (Fragment)	Q9H3M9	39581.41	6.22E−03	0567
928	HIPK3_HUMAN (Q9H422) Homeodomain-interacting protein kinase 3 (EC 2.7.1.37) (Homolog of protein kin	Q9H422	133658.7	3.99E−03	0549
929	Q9H6S3 (Q9H6S3) Hypothetical protein FLJ21935	Q9H6S3	83739.81	6.12E−04	0571
930	Q9H878 (Q9H878) Hypothetical protein FLJ13893	Q9H878	42146.18	1.26E−03	0541
931	PANK3_HUMAN (Q9H999) Pantothenate kinase 3 (EC 2.7.1.33) (Pantothenic acid kinase 3) (hPanK3)	Q9H999	41067.9	3.46E−03	0535
932	Q9H9E4 (Q9H9E4) Hypothetical protein FLJ12811	Q9H9E4	59940.2	1.30E−03	0574
933	Q9HA36 (Q9HA36) Hypothetical protein FLJ12303	Q9HA36	63469.17	2.77E−03	0567
934	POPD3_HUMAN (Q9HBV1) Popeye domain containing protein 3 (Popeye protein 3)	Q9HBV1	33848.33	2.18E−04	0571
935	Q9HBY0 (Q9HBY0) Putative superoxide-generating NADPH oxidase Mox2 (NADPH oxidase 3)	Q9HBY0	64893.13	3.83E−03	0560
936	ZSWM6_HUMAN (Q9HCJ5) Zinc finger SWIM domain containing protein 6 (Fragment)	Q9HCJ5	84041.97	2.85E−03	0535
937	ZBT26_HUMAN (Q9HCK0) Zinc finger and BTB domain containing protein 26 (Zinc finger protein 481) (Zi	Q9HCK0	49920.5	5.26E−03	0552
938	RFRP_HUMAN (Q9HCQ7) FMRFamide-related peptides precursor [Contains: Neuropeptide NPSF (Neuropeptide	Q9HCQ7	22312.28	1.20E−04	0567
939	XAB2_HUMAN (Q9HCS7) XPA-binding protein 2 (HCNP protein)	Q9HCS7	99946.48	4.36E−03	0556

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
940	Q9HD28 (Q9HD28) Retinitis pigmentosa GTPase regulator (Fragment)	Q9HD28	62722.3	5.89E−03	0541
941	DMAP1_HUMAN (Q9NPF5) DNA methyltransferase 1-associated protein 1 (DNMT1-associated protein 1) (DNM	Q9NPF5	52959.89	4.26E−03	0541
942	RTN4_HUMAN (Q9NQC3) Reticulon-4 (Neurite outgrowth inhibitor) (Nogo protein) (Foocen) (Neuroendocri	Q9NQC3	129851.2	6.83E−03	0578
943	DDX4_HUMAN (Q9NQI0) DEAD-box protein 4 (VASA homolog)	Q9NQI0	79257.87	6.00E−03	0541
944	Q9NQW6 (Q9NQW6) Actin binding protein anillin	Q9NQW6	124200.7	7.48E−04	0541
945	ZN331_HUMAN (Q9NQX6) Zinc finger protein 331 (Zinc finger protein 463) (C2H2-like zinc finger prote	Q9NQX6	53704.15	6.51E−03	0549
946	TLR9_HUMAN (Q9NR96) Toll-like receptor 9 precursor (CD289 antigen)	Q9NR96	115785.8	8.93E−03	0552
947	SPTN5_HUMAN (Q9NRC6) Spectrin beta chain, brain 4 (Spectrin, non-erythroid beta chain 4) (Beta-V sp	Q9NRC6	416577.2	6.09E−03	0556
948	STRN4_HUMAN (Q9NRL3) Striatin-4 (Zinedin)	Q9NRL3	80532.22	8.80E−03	0578
949	Q9NRX1 (Q9NRX1) Putatative 28 kDa protein (RNA-binding protein LOC56902) (Hypothetical protein LOC5	Q9NRX1	27906.86	2.17E−03	0549
950	Q9NS08 (Q9NS08) HSPC045 protein	Q9NS08	23897.4	6.08E−03	0571
951	Q9NSG2 (Q9NSG2) Hypothetical protein C1orf112 (Novel protein)	Q9NSG2	96491.85	3.39E−03	0574
952	Q9NSI1 (Q9NSI1) PRED57 protein	Q9NSI1	12605.25	1.96E−03	0560
953	MDN1_HUMAN (Q9NU22) Midasin (MIDAS-containing protein)	Q9NU22	632425.4	5.39E−03	0535
954	Q9NVD6 (Q9NVD6) Hypothetical protein FLJ10795	Q9NVD6	98613.02	6.33E−03	0549
955	Q9NXB7 (Q9NXB7) Hypothetical protein FLJ20336	Q9NXB7	93451.76	8.21E−03	0535
956	STAB1_HUMAN (Q9NY15) Stabilin-1 precursor (FEEL-1 protein) (MS-1 antigen)	Q9NY15	275292.3	8.37E−03	0552
957	ZN226_HUMAN (Q9NYT6) Zinc finger protein 226	Q9NYT6	91861.71	9.11E−03	0571
958	NLGN3_HUMAN (Q9NZ94) Neuroligin-3 precursor (Gliotactin homolog)	Q9NZ94	93836.29	7.55E−03	0556
959	COMD9_HUMAN (Q9P000) COMM domain containing protein 9	Q9P000	21904.53	4.92E−03	0574
960	Q9P0P3 (Q9P0P3) HSPC235	Q9P0P3	40126.53	6.80E−03	0560
961	K1404_HUMAN (Q9P2E3) Protein KIAA1404	Q9P2E3	220083.3	6.94E−03	0541
962	KLHL8_HUMAN (Q9P2G9) Kelch-like protein 8	Q9P2G9	68816.98	8.80E−03	0549
963	KLHL9_HUMAN (Q9P2J3) Kelch-like protein 9	Q9P2J3	69383.3	8.75E−03	0574
964	ATS9_HUMAN (Q9P2N4) ADAMTS-9 precursor (EC 3.4.24.—) (A disintegrin and metalloproteinase with thro	Q9P2N4	216415.5	1.89E−03	0549
965	SUCB1_HUMAN (Q9P2R7) Succinyl-CoA ligase [ADP-forming] beta-chain, mitochondrial precursor (EC 6.2.	Q9P2R7	50299.33	8.61E−03	0535
966	Q9P2T3 (Q9P2T3) TU12B1-TY	Q9P2T3	55685.21	2.42E−03	0541
967	SPAST_HUMAN (Q9UBP0) Spastin	Q9UBP0	67155.37	6.36E−03	0535
968	CYLN2_HUMAN (Q9UDT6) Cytoplasmic linker protein 2 (Cytoplasmic linker protein 115) (CLIP-115) (Will	Q9UDT6	115766.9	3.27E−04	0567
969	FBX40_HUMAN (Q9UH90) F-box only protein 40 (Muscle disease-related protein)	Q9UH90	79612.4	1.73E−03	0552
970	Q9UI92 (Q9UI92) Putative WHSC1 protein	Q9UI92	69354.6	2.65E−04	0541
971	ZN230_HUMAN (Q9UIE0) Zinc finger protein 230 (Zinc finger protein FDZF2)	Q9UIE0	54357.46	2.69E−03	0535
972	Q9UKL0 (Q9UKL0) CoREST protein	Q9UKL0	52995.61	9.45E−03	0574
973	MYH13_HUMAN (Q9UKX3) Myosin-13 (Myosin heavy chain, skeletal muscle, extraocular) (MyHC-eo)	Q9UKX3	223539.2	9.78E−03	0567
974	Q9UL88 (Q9UL88) Myosin-reactive immunoglobulin heavy chain variable region (Fragment)	Q9UL88	14133.25	1.61E−09	0556
975	Q9ULE0 (Q9ULE0) KIAA1280 protein (Fragment)	Q9ULE0	115103.3	2.01E−04	0560
976	Q9ULU2 (Q9ULU2) KIAA1127 protein (Fragment)	Q9ULU2	238454.6	4.48E−03	0549
977	ZN179_HUMAN (Q9ULXS) Zinc finger protein 179 (Brain finger protein) (RING finger protein 112)	Q9ULX5	68310.9	5.77E−03	0567
978	GBRT_HUMAN (Q9UN88) Gamma-aminobutyric-acid receptor theta subunit precursor (GABA(A) receptor)	Q9UN88	71975.9	3.03E−03	0552
979	TRI35_HUMAN (Q9UPQ4) Tripartite motif protein 35 (Hemopoeitic lineage switch protein 5)	Q9UPQ4	56503.89	2.53E−03	0571
980	CD2L2_HUMAN (Q9UQ88) PITSLRE serine/threonine-protein kinase CDC2L2 (EC 2.7.1.37) (Galactosyltransf	Q9UQ88	90948.52	3.00E−03	0567
981	MTMR7_HUMAN (Q9Y216) Myotubularin-related protein 7 (EC 3.1.3.—) (Fragment)	Q9Y216	45407.51	2.59E−03	0541
982	FYV1_HUMAN (Q9Y2I7) FYVE finger-containing phosphoinositide kinase (EC 2.7.1.68) (1-phosphatidylino	Q9Y2I7	236956.6	8.19E−03	0541
983	Q9Y2K3 (Q9Y2K3) KIAA1000 protein (Fragment)	Q9Y2K3	225676.5	3.13E−03	0571
984	SYYM_HUMAN (Q9Y2Z4) Probable tyrosyl-tRNA synthetase, mitochondrial precursor (EC 6.1.1.1) (Tyrosin	Q9Y2Z4	53165.8	5.75E−03	0541
985	ZN337_HUMAN (Q9Y3M9) Zinc finger protein 337	Q9Y3M9	86819.26	9.12E−03	0552
986	TRRAP_HUMAN (Q9Y4A5) Transformation/transcription domain-associated protein (350/400 kDa PCAF-assoc	Q9Y4A5	437303	1.86E−03	0560

TABLE 4-continued

Proteins identified in vitreous fluids of cadaver samples (IV)

	Protein	Accession	MW	P (pro)	Patient ID
987	UBP15_HUMAN (Q9Y4E8) Ubiquitin carboxyl-terminal hydrolase 15 (EC 3.1.2.15) (Ubiquitin thiolesteras	Q9Y4E8	112347.6	3.17E-03	0549
988	M4K5_HUMAN (Q9Y4K4) Mitogen-activated protein kinase kinase kinase kinase 5 (EC 2.7.1.37) (MAPK/ERK	Q9Y4K4	94979.4	8.66E-03	0567
989	Q9Y528 (Q9Y528) Hypothetical protein (Fragment)	Q9Y528	77665.97	9.30E-03	0560
990	PCDBE_HUMAN (Q9Y5E9) Protocadherin beta 14 precursor (PCDH-beta14)	Q9Y5E9	87494.04	1.47E-03	0571
991	PCDGE_HUMAN (Q9Y5G2) Protocadherin gamma B2 precursor (PCDH-gamma-B2)	Q9Y5G2	100813.4	3.07E-03	0567
992	PCDG6_HUMAN (Q9Y5G7) Protocadherin gamma A6 precursor (PCDH-gamma-A6)	Q9Y5G7	100809.6	4.10E-03	0578
993	ST14_HUMAN (Q9Y5Y6) Suppressor of tumorigenicity 14 (EC 3.4.21.—) (Matriptase) (Membrane-type serin	Q9Y5Y6	94708.81	1.92E-03	0571
994	S12A7_HUMAN (Q9Y666) Solute carrier family 12 member 7 (Electroneutral potassium-chloride cotranspo	Q9Y666	119072.7	5.71E-03	0567
995	MD1L1_HUMAN (Q9Y6D9) Mitotic spindle assembly checkpoint protein MAD1 (Mitotic arrest deficient-lik	Q9Y6D9	83015.71	4.46E-03	0571
996	CDY1_HUMAN (Q9Y6F8) Testis-specific chromodomain protein Y 1	Q9Y6F8	60435.05	6.22E-03	0549

? indicates text missing or illegible when filed

[0062]

TABLE 5

Proteins identified in 25 runs (5 patients with diagnosed Retinal Detachment)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	counts in R[?	?tot ids in 25 runs
1	BACED	Serum albumin precursor	1.33E-14	69321.63	P02768	60	5	25
2	AEBDC	Serotransferrin precursor	1.41E-13	76999.66	P02787	50	5	25
3	ACDEB	Hypothetical protein	2.78E-07	20655.36	Q569I7	3	5	22
4	ECBAD	Transthyretin precursor	6.00E-14	15877.05	P02766	2	5	20
5	EBDAC	Interphotoreceptor retinoid-binding protein precursor	1.00E-30	135277.8	P10745	1	5	19
6	CADEB	PH domain containing protein	8.00E-05	53317.19	Q8TD55	1	5	18
7	DAECB	Alpha-1-acid glycoprotein 1 precursor	1.02E-09	23496.77	P02763	2	5	17
8	CBDA	Keratin, type II cytoskeletal 1	2.94E-11	65846.88	P04264	1	4	17
9	ABDEC	Clusterin precursor	3.33E-12	52461.05	P10909	9	5	16
10	AEBDC	Hemopexin precursor	8.88E-15	51643.32	P02790	4	5	13
11	CDEAB	Transcription factor NF-E4	3.06E-04	19006.73	Q86UQ8	2	5	13
12	AEBD	Apolipoprotein A-I precursor	3.51E-10	30758.94	P02647	8	4	13
13	AECDB	Alpha-1-antitrypsin precursor	8.88E-15	46707.09	P01009	4	5	12
14	AECBD	Nuclear receptor-interacting factor	2.52E-03	52754.03	Q8WY14	1	5	12
15	ABCDE	Ig gamma-1 chain C region	4.94E-13	36083.16	P01857	8	5	11
16	DBC	Alpha 2 globin variant	3.80E-12	15270.94	Q53F97	4	3	11
17	CEAB	Apolipoprotein A-II precursor	5.95E-12	11167.9	P02652	1	4	10
18	ADCE	Hypothetical protein FLJ40259	1.29E-04	66086.88	Q8N7W7	1	4	10
19	BEA	Pigment epithelium-derived factor precursor	1.93E-10	46313.36	P36955	8	3	10
20	DBA	Keratin, type I cytoskeletal 10	1.51E-09	59482.76	P13645	1	3	10
21	BD	Hemoglobin delta subunit	1.78E-14	15914.25	P02042	13	2	10
22	BD	Beta-globin gene from a thalassemia patient	2.17E-12	18918.59	Q14473	10	2	10
23	AECB	Hypothetical protein FLJ42076	3.47E-04	21036.72	Q6ZVU4	2	4	9
24	DCEAB	PML-RARA regulated adaptor molecule 1	1.38E-03	73950.18	Q8N6W7	1	5	8
25	DAEC	Keratin, type II cytoskeletal 1b	2.57E-06	61650.4	Q7Z794	2	4	8
26	DECA	Double-stranded RNA-binding protein	1.39E-04	63227.92	O95793	1	4	8
27	ECDA	HNRBF-2	5.30E-05	31787.43	Q9H2I2	1	4	8
28	BCD	Vacuolar protein sorting 13A	9.97E-04	360046.1	Q96RL7	1	3	8
29	AEDCB	Zinc finger protein 185	4.35E-03	49156.87	O15231	1	5	7
30	ABED	Complement C4-A precursor	4.22E-14	192649.5	P0C0L4	1	4	7
31	CDAE	ADAMTS-12 precursor	2.30E-04	177429.5	P58397	1	4	7
32	BCDA	Keratin 10	5.82E-13	57212.99	Q14664	1	4	7
33	AB	Dickkopf-related protein 3 precursor	2.33E-08	38266.07	Q9UBP4	3	2	7
34	EDCB	Colony stimulating factor 2 receptor	7.80E-05	46871.63	Q4V312	1	4	6
35	EDCA	KIAA1200 protein	2.86E-03	155607.6	Q9ULM0	1	4	6
36	ACE	Tuberin (Tuberous sclerosis 2 protein)	7.82E-05	200621.4	P49815	1	3	6
37	CAE	Kallikrein-14 precursor	1.67E-04	27434.89	Q9P0G3	1	3	6
38	CBDE	LOC131076 protein	2.50E-03	16609.49	Q4VC31	1	4	5

TABLE 5-continued

Proteins identified in 25 runs (5 patients with diagnosed Retinal Detachment)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	counts in R[?	?tot ids in 25 runs
39	DBCA	Hypothetical protein DKFZp686J11235	9.99E−08	54424.95	Q6MZW0	1	4	5
40	EBC	Keratin, type II	5.27E−07	54935.82	Q14533	1	3	5
41	ECA	Tumor necrosis factor	1.04E−03	20099.21	Q5VWH1	1	3	5
42	AE	Vitamin D-binding protein	7.09E−10	52902.04	Q6GTG1	4	2	5
43	BA	Keratin, type II cytoskeletal	5.57E−07	65825.37	P35908	1	2	5
44	CA	LOC150763 protein	7.57E−05	87507.18	Q6NUI2	1	2	5
45	EC	Hypothetical protein FLJ44670	5.11E−03	115755	Q6ZTG8	1	2	5
46	EDCB	Hypothetical protein DKFZp434I138	2.57E−04	78784.1	Q659E3	1	4	4
47	CEA	Histone acetyltransferase	6.68E−04	92953.77	Q92831	1	3	4
48	DCB	WD-repeat protein 9	2.64E−03	257060.4	Q9NSI6	1	3	4
49	AB	Hypothetical protein DKFZp686I04196	1.25E−11	46031.66	Q6N093	6	2	4
50	EC	Proto-oncogene tyrosine-protein kinase	4.63E−05	93412.31	P07332	1	2	4
51	AB	Cathepsin D precursor	3.66E−09	44523.66	P07339	1	2	4
52	AE	Cytochrome P450	4.19E−04	55766.2	P10635	1	2	4
53	BD	Peroxiredoxin 1	1.57E−06	22096.28	Q06830	1	2	4
54	ED	Hypothetical protein FLJ43007	1.02E−04	19332.49	Q6ZV44	1	2	4
55	CE	Hypothetical protein FLJ20202	2.74E−03	44899.86	Q9NXK0	1	2	4
56	BAE	Ceruloplasmin precursor	1.11E−12	122127.6	P00450	3	3	3
57	ABD	Complement C3 precursor	5.42E−11	187045.3	P01024	1	3	3
58	ABE	Intercellular adhesion molecule 3 precursor	4.62E−03	59345.85	P32942	1	3	3
59	ECD	Nuclear pore complex protein Nup214	4.38E−03	213632.8	P35658	1	3	3
60	EAD	Dystroglycan precursor	1.78E−03	97519.91	Q14118	1	3	3
61	ADC	Alpha-internexin	2.07E−03	55357.48	Q16352	1	3	3
62	ECA	Transmembrane channel-like protein 7	2.53E−03	83447.49	Q7Z402	1	3	3
63	BCE	Hypothetical protein FLJ40243	1.50E−03	180566.4	Q7Z745	1	3	3
64	DEA	T-cell activation Rho GTPase-activating protein	5.60E−03	80652.9	Q8N103	1	3	3
65	BCA	Hypothetical protein FLJ40479	3.57E−03	45893.4	Q8N7Q3	1	3	3
66	EDC	Protein C9orf126	1.82E−03	70385.07	Q8N9R8	1	3	3
67	ACB	Hypothetical protein FLJ35435	1.05E−04	65308.66	Q8NAF6	1	3	3
68	BAD	Protein KIAA1199 precursor	1.11E−03	152900	Q8WUJ3	1	3	3
69	CDE	G patch domain containing protein 3	2.28E−03	59301.11	Q96I76	1	3	3
70	BA	Alpha-2-macroglobulin precursor	9.36E−09	163174.3	P01023	2	2	3
71	BA	Ig gamma-3 chain C region	1.07E−08	32309.81	P01860	2	2	3
72	CE	Basement membrane-specific heparan sulfate proteoglyca?	4.04E−04	468528.2	P98160	1	2	3
73	CA	Trichohyalin	2.97E−03	247074.4	Q07283	1	2	3
74	BA	IGLC2 protein	2.41E−11	24784.13	Q567P1	1	2	3
75	BE	Receptor interacting protein kinase 5	2.01E−03	99957.35	Q5RKT0	1	2	3
76	BD	Novel protein	2.74E−04	91277.53	Q5VVM6	1	2	3
77	CD	Hypothetical protein	5.22E−03	9188.304	Q6PHR9	1	2	3
78	AC	Hypothetical protein FAM33A	4.24E−03	14179.33	Q8WVK7	1	2	3
79	CA	Hypothetical protein FLJ22346	3.68E−03	81825.66	Q9H6E6	1	2	3
80	EC	Calcium-independent phospholipase A2	2.83E−03	88421.11	Q9NP80	1	2	3
81	DE	Endocrine regulator	4.94E−04	231761.3	Q9Y2W9	1	2	3
82	E	Potassium voltage-gated channel subfamily A	8.04E−04	56505.6	Q09470	1	1	3
83	D	Huntingtin interacting protein E	7.33E−05	51745.16	Q9BVA6	1	1	3
84	BE	KIAA0068 protein (Fragment)	2.65E−04	147040.6	Q14467	2	2	2
85	AD	Protein C19orf10 precursor (Stromal cell-derived GF)	6.67E−03	18783.32	Q969H8	2	2	2
86	CE	Hypothetical protein FLJ21129	2.87E−03	63276.44	Q9H796	2	2	2
87	CE	HS1-associating protein X-1	2.63E−03	31601.06	O00165	1	2	2
88	AD	Tumor necrosis factor receptor superfamily	7.09E−03	50028.81	O00220	1	2	2
89	AB	Zinc finger protein 197	4.82E−03	118770.8	O14709	1	2	2
90	EA	Inositol polyphosphate 5-phosphatase	1.69E−04	138498.9	O15357	1	2	2
91	DE	DNA repair protein RAD51 homolog 3	3.18E−03	42162.89	O43502	1	2	2
92	DA	TBC1 domain family member 4 (Akt substrate)	7.09E−04	146470.8	O60343	1	2	2
93	EC	Zinc finger protein ZIC 2	3.64E−03	54971.09	O95409	1	2	2
94	BA	Supervillin	5.54E−03	247550.6	O95425	1	2	2
95	CA	Ig lambda chain V region	4.35E−03	12372.02	P04211	1	2	2
96	BE	Keratin, type II	4.19E−05	59831.25	P04259	1	2	2
97	AB	Osteopontin precursor	3.06E−07	35401.25	P10451	1	2	2
98	CA	Cation-independent mannose-6-phosphate receptor	5.66E−03	274097.6	P11717	1	2	2
99	DE	Filamin-A	3.86E−03	280583.4	P21333	1	2	2
100	CE	Macrophage scavenger receptor types I and II	7.76E−04	49730.82	P21757	1	2	2
101	EC	Receptor-type tyrosine-protein phosphatase delta	3.04E−03	214623.5	P23468	1	2	2
102	EA	Epoxide hydrolase 2	1.17E−03	62574.77	P34913	1	2	2
103	AB	Prostaglandin-H2 D-isomerase	3.34E−10	21015.35	P41222	1	2	2
104	CD	Matrin-3	3.80E−03	94564.67	P43243	1	2	2
105	CE	Voltage-dependent anion-selective channel protein 2	4.14E−04	38068.68	P45880	1	2	2
106	ED	G protein-activated inward rectifier potassium channel 1	4.27E−04	56566.8	P48549	1	2	2
107	BA	Dual specificity protein phosphatase 5	2.53E−04	42080.39	Q16690	1	2	2
108	DE	Maguin-like protein variant II	1.71E−03	61848.88	Q5SGD5	1	2	2

TABLE 5-continued

Proteins identified in 25 runs (5 patients with diagnosed Retinal Detachment)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	counts in R[?	?tot ids in 25 runs
109	AB	RhoGTPase regulating protein variant ARHGAP20-1be	7.13E-03	130153.4	Q6RJU1	1	2	2
110	BE	FLJ00268 protein (Fragment)	2.78E-03	72805.3	Q6ZML5	1	2	2
111	BD	Hypothetical protein FLJ44832	4.10E-03	139335.1	Q6ZQT3	1	2	2
112	CE	RUN domain containing 1	2.55E-03	67603.02	Q8IXT9	1	2	2
113	BD	Hypothetical protein TMEM55A	4.69E-05	28062.26	Q8N4L2	1	2	2
114	ED	Hypothetical protein DKFZp547B1713	9.06E-03	32732.49	Q8NDD1	1	2	2
115	CE	GCN1-like protein 1 (HsGCN1)	5.09E-03	292424.8	Q92616	1	2	2
116	CA	LAG1 longevity assurance homolog 2	1.46E-04	44847.38	Q96G23	1	2	2
117	CA	Serine/threonine-protein kinase	8.12E-03	134655.6	Q96J92	1	2	2
118	DB	Hypothetical protein gs80	9.47E-04	25483.99	Q96S02	1	2	2
119	CD	Hypothetical protein FLJ13940	2.89E-03	27528.79	Q9H853	1	2	2
120	CD	ADAM 28 precursor	2.62E-04	87151.09	Q9UKQ2	1	2	2
121	EB	KIAA1238 protein (Fragment)	7.85E-03	45141.04	Q9ULI2	1	2	2
122	AC	Mitochondrial 28S ribosomal protein S2	5.60E-05	33228.08	Q9Y399	1	2	2
123	A	IGKC protein	1.11E-15	25919.92	Q502W4	3	1	2
124	B	Adenylate kinase isoenzyme 2	1.02E-03	26329.73	P54819	2	1	2
125	B	AACT_HUMAN (P01011) Alpha-1-antichymotrypsin precur?	2.48E-04	47620.63	P01011	1	1	2
126	C	DAX1_HUMAN (P51843) Nuclear receptor 0B1 (Nuclear r?	1.40E-03	51683.89	P51843	1	1	2
127	C	Q684R2 (Q684R2) Para-hydroxybenzoate-polyprenyltrans?	3.25E-03	45578.79	Q684R2	1	1	2
128	B	Q6PHR8 (Q6PHR8) Hypothetical protein (Fragment)	6.89E-03	33452.8	Q6PHR8	1	1	2
129	E	Q8IYE0 (Q8IYE0) Hypothetical protein KIAA1505	3.71E-03	112734.9	Q8IYE0	1	1	2
130	D	ZN473_HUMAN (Q8WTR7) Zinc finger protein 473 (Zinc fi?	2.47E-03	100118.1	Q8WTR7	1	1	2
131	B	CPSF3_HUMAN (Q9UKF6) Cleavage and polyadenylation?	1.14E-03	77436.22	Q9UKF6	1	1	2
132	B	K2C5_HUMAN (P13647) Keratin, type II cytoskeletal 5 (Cy?	7.34E-08	62409.08	P13647	3	1	1
133	E	TLR5_HUMAN (O60602) Toll-like receptor 5 precursor (To?	3.64E-03	97663.38	O60602	2	1	1
134	B	CAH1_HUMAN (P00915) Carbonic anhydrase 1 (EC 4.2.1.?	8.52E-08	28721.34	P00915	2	1	1
135	A	CYTC_HUMAN (P01034) Cystatin C precursor (Neuroend?	1.70E-04	15789.08	P01034	2	1	1
136	A	KNG1_HUMAN (P01042) Kininogen-1 precursor (Alpha-2-?	2.12E-10	71900.1	P01042	2	1	1
137	B	K1C14_HUMAN (P02533) Keratin, type I cytoskeletal 14 (?	3.33E-06	51458.45	P02533	2	1	1
138	B	APOE_HUMAN (P02649) Apolipoprotein E precursor (Apo?	3.07E-03	36131.79	P02649	2	1	1
139	B	K1C9_HUMAN (P35527) Keratin, type I cytoskeletal 9 (Cyt?	2.20E-12	62091.76	P35527	2	1	1
140	D	O00211 (O00211) HSLK (Ste20-related serineVthreonine k?	8.39E-03	138909.7	O00211	1	1	1
141	D	P3C2A_HUMAN (O00443) Phosphatidylinositol-4-phospha?	7.07E-03	190616.2	O00443	1	1	1
142	B	SYT5 HUMAN (O00445) Synaptotagmin = 5 (Synaptotagmi?	3.71E-03	42873.54	O00445	1	1	1
143	A	CHD2_HUMAN (O14647) Chromodomain-helicase-DNA-b?	7.04E-03	200437.6	O14647	1	1	1
144	C	MLL2_HUMAN (O14686) Myeloid/lymphoid or mixed-linea?	8.21E-04	563835.8	O14686	1	1	1
145	E	O15042 (O15042) Hypothetical protein KIAA0332 (U2-ass?	7.16E-04	118087.4	O15042	1	1	1
146	B	SNPH_HUMAN (O15079) Syntaphilin	7.58E-03	57953.73	O15079	1	1	1
147	A	WDR46_HUMAN (O15213) WD-repeat protein 46 (WD-re?	3.67E-03	67998.89	O15213	1	1	1
148	A	SGCE_HUMAN (O43556) Epsilon-sarcoglycan precursor (?	2.18E-04	49722.25	O43556	1	1	1
149	E	HAPIP_HUMAN (O60229) Huntingtin-associated protein-in?	3.37E-03	192107.9	O60229	1	1	1
150	E	O60687 (O60687) Sushi-repeat-containing protein, X-linke?	4.07E-03	52937.79	O60687	1	1	1
151	D	ZC11A_HUMAN (O75152) Zinc finger CCCH-type domain	4.33E-03	89076.06	O75152	1	1	1
152	C	O75198 (O75198) CDC37-like gene	1.49E-03	26530.93	O75198	1	1	1
153	A	AVIL_HUMAN (O75366) Advillin (p92)	8.01E-03	92028.35	O75366	1	1	1
154	C	MYCB2_HUMAN (O75592) Probable ubiquitin ligase prote?	7.36E-03	509842.3	O75592	1	1	1
155	A	CMC1_HUMAN (O75746) Calcium-binding mitochondrial?	3.32E-03	74709.01	O75746	1	1	1
156	E	MFN2_HUMAN (O95140) Transmembrane GTPase MFN2?	4.18E-03	86346.95	O95140	1	1	1
157	B	G6PE_HUMAN (O95479) GDH/6PGL endoplasmic bifunct?	3.69E-03	88822.63	O95479	1	1	1
158	A	O95978 (O95978) VH1 protein precursor (Fragment)	1.17E-07	17292.5	O95978	1	1	1
159	D	HPTR_HUMAN (P00739) Haptoglobin-related protein prec?	5.05E-03	38982.66	P00739	1	1	1
160	A	CFAB_HUMAN (P00751) Complement factor B precursor ?	2.24E-04	85478.58	P00751	1	1	1
161	A	ASSY_HUMAN (P00966) Argininosuccinate synthase (EC?	4.02E-03	46501.01	P00966	1	1	1
162	B	K2C6A_HUMAN (P02538) Keratin, type II cytoskeletal 6A (?	4.96E-03	59877.28	P02538	1	1	1
163	B	APOH_HUMAN (P02749) Beta-2-glycoprotein I precursor (?	3.96E-03	38272.67	P02749	1	1	1
164	A	RETBP HUMAN (P02753) Plasma retinol = binding protein?	1.36E-03	22995.26	P02753	1	1	1
165	A	FETUA_HUMAN (P02765) Alpha-2-HS-glycoprotein precu?	3.37E-04	39299.73	P02765	1	1	1
166	B	VTNC_HUMAN (P04004) Vitronectin precursor (Serum sp?	1.09E-03	54271.23	P04004	1	1	1
167	B	HRG_HUMAN (P04196) Histidine-rich glycoprotein precur?	5.94E-04	59540.94	P04196	1	1	1
168	A	CFAI_HUMAN (P05156) Complement factor I precursor (E?	2.93E-05	65676.66	P05156	1	1	1
169	D	ITB1_HUMAN (P05556) Integrin beta-1 precursor (Fibrone?	7.50E-05	88406.98	P05556	1	1	1
170	A	KV2F_HUMAN (P06310) Ig kappa chain V-II region RPMI?	1.78E-06	14697.37	P06310	1	1	1
171	B	GELS_HUMAN (P06396) Gelsolin precursor (Actin-depoly?	5.71E-04	85644.25	P06396	1	1	1
172	B	K1C16_HUMAN (P08779) Keratin, type I cytoskeletal 16 (?	1.08E-06	51105.21	P08779	1	1	1
173	E	TAU_HUMAN (P10636) Microtubule-associated protein ta?	7.47E-04	78698.83	P10636	1	1	1
174	D	PABP1_HUMAN (P11940) Polyadenylate-binding protein 1?	9.99E-03	70626.04	P11940	1	1	1
175	B	SCG2_HUMAN (P13521) Secretogranin-2 precursor (Secr?	6.93E-03	70825.11	P13521	1	1	1
176	C	UCHL3_HUMAN (P15374) Ubiquitin carboxyl-terminal hyd?	6.36E-03	26165.98	P15374	1	1	1
177	C	PDE6A_HUMAN (P16499) Rod cGMP-specific 3',5'-cyclic ?	4.04E-03	99438.76	P16499	1	1	1

TABLE 5-continued

Proteins identified in 25 runs (5 patients with diagnosed Retinal Detachment)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	counts in R[?	?tot ids in 25 runs
178	B	CBPE_HUMAN (P16870) Carboxypeptidase E precursor (?	1.65E-06	53117.17	P16870	1	1	1
179	B	AATC_HUMAN (P17174) Aspartate aminotransferase, cyt?	9.28E-03	46087.54	P17174	1	1	1
180	B	A1AG2_HUMAN (P19652) Alpha-1-acid glycoprotein 2 pre?	4.46E-06	23587.64	P19652	1	1	1
181	B	A1ATR_HUMAN (P20848) Alpha-1-antitrypsin-related prot?	7.19E-03	47860.97	P20848	1	1	1
182	E	RAE2_HUMAN (P26374) Rab proteins geranylgeranyltrans?	1.83E-03	74024.21	P26374	1	1	1
183	A	MRP1_HUMAN (P33527) Multidrug resistance-associated?	1.77E-03	171450.5	P33527	1	1	1
184	A	TSP2_HUMAN (P35442) Thrombospondin-2 precursor	3.33E-04	129871.5	P35442	1	1	1
185	B	VGFR2_HUMAN (P35968) Vascular endothelial growth fa?	1.56E-03	151430.5	P35968	1	1	1
186	B	CH3L1_HUMAN (P36222) Chitinase-3-like protein 1 precu?	2.71E-06	42586.39	P36222	1	1	1
187	B	MAP1B_HUMAN (P46821) Microtubule-associated protein?	5.22E-03	270451.8	P46821	1	1	1
188	B	PCY1A_HUMAN (P49585) Choline-phosphate cytidylyltran?	3.65E-03	41705.8	P49585	1	1	1
189	E	CEBPD_HUMAN (P49716) CCAAT/enhancer binding prote?	6.61E-03	28461.45	P49716	1	1	1
190	A	TCPQ_HUMAN (P50990) T-complex protein 1, theta subu?	2.31E-03	59451.57	P50990	1	1	1
191	D	CCR6_HUMAN (P51684) C—C chemokine receptor type 6?	7.26E-03	42465.93	P51684	1	1	1
192	C	EPHA5_HUMAN (P54756) Ephrin type-A receptor 5 precu?	7.74E-03	114710.3	P54756	1	1	1
193	A	PSD4_HUMAN (P55036) 26S proteasome non-ATPase re?	6.62E-04	40711.21	P55036	1	1	1
194	A	PSME3_HUMAN (P61289) Proteasome activator complex?	3.25E-03	29487.55	P61289	1	1	1
195	B	B2MG_HUMAN (P61769) Beta-2-microglobulin precursor [	3.51E-07	13705.91	P61769	1	1	1
196	A	GBB1_HUMAN (P62873) Guanine nucleotide-binding prot?	1.27E-03	37221.98	P62873	1	1	1
197	D	CXAR_HUMAN (P78310) Coxsackievirus and adenovirus ?	1.03E-03	40004.39	P78310	1	1	1
198	B	K22O_HUMAN (Q01546) Keratin, type II cytoskeletal 2 ora?	8.00E-03	65830.09	Q01546	1	1	1
199	A	GALT1_HUMAN (Q10472) Polypeptide N-acetylgalactosar?	3.87E-03	64177.48	Q10472	1	1	1
200	B	PTN13_HUMAN (Q12923) Tyrosine-protein phosphatase,	3.13E-05	276731.3	Q12923	1	1	1
201	C	DLG1_HUMAN (Q12959) Presynaptic protein SAP97 (Syn?	6.56E-03	100293.1	Q12959	1	1	1
202	A	AKAP6_HUMAN (Q13023) A-kinase anchor protein 6 (Pro?	1.63E-03	256503.6	Q13023	1	1	1
203	A	ATM_HUMAN (Q13315) Serine-protein kinase ATM (EC 2.?	4.51E-03	350417.1	Q13315	1	1	1
204	E	MYO7A_HUMAN (Q13402) Myosin-7A (Myosin VIIa)	8.23E-04	254242.5	Q13402	1	1	1
205	B	ROCK1_HUMAN (Q13464) Rho-associated protein kinase?	1.42E-03	158074.9	Q13464	1	1	1
206	A	ENPP2_HUMAN (Q13822) Ectonucleotide pyrophosphata?	5.80E-10	98939.61	Q13822	1	1	1
207	A	UBE4A_HUMAN (Q14139) Ubiquitin conjugation factor E4?	7.03E-03	122482	Q14139	1	1	1
208	D	SMC1A_HUMAN (Q14683) Structural maintenance of chr?	9.76E-04	143143.6	Q14683	1	1	1
209	C	NOLC1_HUMAN (Q14978) Nucleolar phosphoprotein p13?	1.80E-03	73676.72	Q14978	1	1	1
210	A	PLEC1_HUMAN (Q15149) Plectin 1 (PLTN) (PCN) (Hemi?	2.61E-04	531411.9	Q15149	1	1	1
211	E	Q15299 (Q15299) RARB protein	7.32E-03	11644	Q15299	1	1	1
212	E	K1H1_HUMAN (Q15323) Keratin, type I cuticular Ha1 (Hai?	1.36E-03	47202.1	Q15323	1	1	1
213	A	NCOA1_HUMAN (Q15788) Nuclear receptor coactivator 1?	4.14E-04	156641.7	Q15788	1	1	1
214	A	Q15813 (Q15813) Beta-tubulin cofactor E (Tubulin-specific?	5.90E-03	59309.08	Q15813	1	1	1
215	A	SCN9A_HUMAN (Q15858) Sodium channel protein type I?	6.73E-03	226193.9	Q15858	1	1	1
216	B	Q495C9 (Q495C9) Hypothetical protein LOC149134	6.59E-03	13623.18	Q495C9	1	1	1
217	A	Q4G0M1 (Q4G0M1) FLJ37034 protein (Fragment)	6.80E-03	14453.34	Q4G0M1	1	1	1
218	D	Q567P4 (Q567P4) Hypothetical protein (Fragment)	2.58E-03	34603.27	Q567P4	1	1	1
219	A	LRC10_HUMAN (Q5BKY1) Leucine-rich repeat-containing?	9.03E-04	31621.81	Q5BKY1	1	1	1
220	B	Q5H9K7 (Q5H9K7) Novel protein (Fragment)	6.32E-03	38685.59	Q5H9K7	1	1	1
221	D	Q5H9K8 (Q5H9K8) Armadillo repeat containing, X-linked 4?	7.72E-03	36484.3	Q5H9K8	1	1	1
222	C	Q5JRL1 (Q5JRL1) Novel protein	6.73E-03	30747.36	Q5JRL1	1	1	1
223	E	Q5T364 (Q5T364) OTTHUMP00000022702	4.05E-03	101941	Q5T364	1	1	1
224	C	Q5T3B9 (Q5T3B9) Novel protein	4.46E-03	45993.33	Q5T3B9	1	1	1
225	E	Q5T7N3 (Q5T7N3) Novel protein	9.47E-03	107275.7	Q5T7N3	1	1	1
226	D	Q5TBP2 (Q5TBP2) Retinoblastoma-associated factor 600?	4.66E-03	106303.1	Q5TBP2	1	1	1
227	B	Q5VWL1 (Q5VWL1) Membrane-associated guanylate kina?	7.51E-03	162847.8	Q5VWL1	1	1	1
228	C	Q5XLJ0 (Q5XLJ0) AIDA1C transcript variant 4	9.99E-03	48400.84	Q5XLJ0	1	1	1
229	E	Q6DN23 (Q6DN23) Platelet phospholipase A2	4.11E-03	16135.78	Q6DN23	1	1	1
230	C	Q6IAM5 (Q6IAM5) SLC27A6 protein	3.12E-03	70042.55	Q6IAM5	1	1	1
231	B	Q6JIC5 (Q6JIC5) Cementum attachment protein	9.87E-03	14910.42	Q6JIC5	1	1	1
232	A	Q6MZX7 (Q6MZX7) Hypothetical protein DKFZp686M242?	1.00E-30	52387.13	Q6MZX7	1	1	1
233	D	Q6P2C5 (Q6P2C5) PHF2 protein	5.50E-03	35720.63	Q6P2C5	1	1	1
234	E	Q6P528 (Q6P528) ASPN protein	8.71E-03	43863.48	Q6P528	1	1	1
235	E	POTE2_HUMAN (Q6S8J3) Prostate, ovary, testis express?	6.93E-03	80701.5	Q6S8J3	1	1	1
236	E	Q6UWG9 (Q6UWG9) HSAL5836	6.47E-03	9682.161	Q6UWG9	1	1	1
237	E	Q6UXZ8 (Q6UXZ8) FVSY9334	7.07E-04	24230.68	Q6UXZ8	1	1	1
238	A	Q6ZN08 (Q6ZN08) Hypothetical protein FLJ16537	4.37E-04	38813.18	Q6ZN08	1	1	1
239	D	Q6ZR14 (Q6ZR14) Hypothetical protein FLJ46736	8.79E-03	126662.9	Q6ZR14	1	1	1
240	E	Q6ZSK5 (Q6ZSK5) Hypothetical protein FLJ45433	6.04E-03	15222.69	Q6ZSK5	1	1	1
241	B	Q6ZSY5 (Q6ZSY5) Hypothetical protein FLJ45123	7.90E-03	42154.05	Q6ZSY5	1	1	1
242	A	Q6ZVQ3 (Q6ZVQ3) Hypothetical protein FLJ42220	1.14E-03	17595.21	Q6ZVQ3	1	1	1
243	D	Q6ZW49 (Q6ZW49) Hypothetical protein FLJ41606	3.89E-03	117615.6	Q6ZW49	1	1	1
244	E	Q702P2 (Q702P2) VPS13C-2B protein	9.67E-03	407940.5	Q702P2	1	1	1
245	C	Q70AK8 (Q70AK8) Ankyrin-repeat-ARM domain protein (F?	8.67E-04	40496.33	Q70AK8	1	1	1
246	A	Q70CQ2 (Q70CQ2) Ubiquitin-specific proteinase 34	9.41E-03	386873.7	Q70CQ2	1	1	1
247	C	Q76E79 (Q76E79) Mitochondrial methionyl-tRNA syntheta?	2.95E-03	66584.84	Q76E79	1	1	1

TABLE 5-continued

Proteins identified in 25 runs (5 patients with diagnosed Retinal Detachment)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	counts in R[?	?tot ids in 25 runs
248	C	Q7KZ97 (Q7KZ97) Antithrombin III variant	2.00E-03	52657.96	Q7KZ97	1	1	1
249	C	Q7L7Q2 (Q7L7Q2) BLOM7 beta (Novel protein)	1.49E-04	59101.39	Q7L7Q2	1	1	1
250	B	Q7RTV7 (Q7RTV7) Adenylyl cyclase type V (Fragment)	2.76E-04	39312.25	Q7RTV7	1	1	1
251	A	TRPM8_HUMAN (Q7Z2W7) Transient receptor potential c?	6.02E-03	127573.3	Q7Z2W7	1	1	1
252	D	Q7Z3P5 (Q7Z3P5) Hypothetical protein DKFZp686P13218?	5.90E-04	30940.46	Q7Z3P5	1	1	1
253	A	NPHP3_HUMAN (Q7Z494) Nephrocystin-3	5.74E-03	150768.9	Q7Z494	1	1	1
254	E	Q86VG6 (Q86VG6) Hypothetical protein	3.43E-03	11523.95	Q86VG6	1	1	1
255	C	TXND2_HUMAN (Q86VQ3) Thioredoxin domain-containing?	7.89E-04	60424.09	Q86VQ3	1	1	1
256	D	NAL14_HUMAN (Q86W24) NACHT-, LRR- and PYD-conta?	1.88E-03	124651.5	Q86W24	1	1	1
257	E	Q86WI3 (Q86WI3) NOD27	5.53E-03	204535	Q86WI3	1	1	1
258	E	Q86WW8 (Q86WW8) Hypothetical protein MGC52110 (H?	4.59E-03	8370.071	Q86WW8	1	1	1
259	D	Q86Y92 (Q86Y92) Similar to KIAA0922 protein (Fragment)?	2.24E-03	154618.6	Q86Y92	1	1	1
260	D	Q8IV73 (Q8IV73) Guanine nucleotide-releasing factor 2, is?	3.40E-03	122658.6	Q8IV73	1	1	1
261	B	Q8IVL1 (Q8IVL1) Steerin2 protein	2.98E-03	267950.3	Q8IVL1	1	1	1
262	B	Q8IVM4 (Q8IVM4) Hypothetical protein	8.10E-03	6014.06	Q8IVM4	1	1	1
263	A	FA20C_HUMAN (Q8IXL6) Protein FAM20C precursor	5.31E-03	64405.57	Q8IXL6	1	1	1
264	E	Q8IY66 (Q8IY66) DNA ligase IV (Ligase IV, DNA, ATP-de?	7.76E-03	103904	Q8IY66	1	1	1
265	D	GP115_HUMAN (Q8IZF3) Probable G-protein coupled rec?	5.14E-04	83775.66	Q8IZF3	1	1	1
266	B	Q8IZQ1 (Q8IZQ1) ALFY	6.15E-03	394992	Q8IZQ1	1	1	1
267	D	AHI1_HUMAN (Q8N157) Jouberin (Abelson helper integra?	2.76E-03	137029	Q8N157	1	1	1
268	C	Q8N1K5 (Q8N1K5) Hypothetical protein FLJ40584	5.82E-03	73625.31	Q8N1K5	1	1	1
269	D	Q8N3I3 (Q8N3I3) Hypothetical protein DKFZp761P18121	3.18E-03	81550.7	Q8N3I3	1	1	1
270	A	Q8N543 (Q8N543) Hypothetical protein FLJ10826	1.90E-03	63206.21	Q8N543	1	1	1
271	E	Q8N780 (Q8N780) Hypothetical protein FLJ25943	8.78E-04	33347.2	Q8N780	1	1	1
272	C	Q8N8Z1 (Q8N8Z1) Hypothetical protein FLJ38687	1.10E-03	16623.52	Q8N8Z1	1	1	1
273	A	Q8N998 (Q8N998) Hypothetical protein FLJ38159	7.01E-03	43781.59	Q8N998	1	1	1
274	D	Q8N9S2 (Q8N9S2) Hypothetical protein FLJ36635	5.25E-03	28973.04	Q8N9S2	1	1	1
275	E	Q8NAJ6 (Q8NAJ6) Hypothetical protein FLJ35251	1.24E-03	81745.5	Q8NAJ6	1	1	1
276	A	Q8NCU4 (Q8NCU4) Hypothetical protein	9.83E-03	110499	Q8NCU4	1	1	1
277	E	Q8NDA2 (Q8NDA2) Hypothetical protein DKFZp434P0216?	7.52E-04	143799.3	Q8NDA2	1	1	1
278	B	Q8NHQ3 (Q8NHQ3) RBBP8 protein	7.19E-05	102594.6	Q8NHQ3	1	1	1
279	A	Q8TAN9 (Q8TAN9) Oxoglutarate dehydrogenase-like	6.91E-03	114423.7	Q8TAN9	1	1	1
280	E	Q8TBB5 (Q8TBB5) Kelch domain containing 4	1.01E-03	57855.43	Q8TBB5	1	1	1
281	B	Q8TBE7 (Q8TBE7) TMEM22 protein	8.33E-03	46419.88	Q8TBE7	1	1	1
282	A	Q8TBZ0 (Q8TBZ0) Hypothetical protein KM-HN-1	6.67E-04	96664.98	Q8TBZ0	1	1	1
283	B	Q8TC05 (Q8TC05) Mdm4, transformed 3T3 cell double mi?	5.19E-03	80695.09	Q8TC05	1	1	1
284	B	CHD6_HUMAN (Q8TD26) Chromodomain-helicase-DNA-?	6.52E-03	305218.9	Q8TD26	1	1	1
285	B	PAR3L_HUMAN (Q8TEW8) Amyotrophic lateral sclerosis?	9.52E-03	132412.5	Q8TEW8	1	1	1
286	E	Q8WVY7 (Q8WVY7) Ubiquitin-like domain containing CTD?	8.32E-04	36781.22	Q8WVY7	1	1	1
287	D	Q8WWA9 (Q8WWA9) Cytochrome P450, family 20, subfa?	9.30E-06	52460.08	Q8WWA9	1	1	1
288	A	ANKR7_HUMAN (Q92527) Ankyrin repeat domain protein	8.25E-03	22573.66	Q92527	1	1	1
289	E	Q92735 (Q92735) FMI protein	4.05E-03	161492.6	Q92735	1	1	1
290	A	PCSK5_HUMAN (Q92824) Proprotein convertase subtilisi?	2.02E-03	101708.3	Q92824	1	1	1
291	C	SNPC3_HUMAN (Q92966) snRNA-activating protein comp?	9.07E-03	46722.65	Q92966	1	1	1
292	A	IRF7_HUMAN (Q92985) Interferon regulatory factor 7 (IRF?	7.33E-04	54244.25	Q92985	1	1	1
293	A	Q969T7 (Q969T7) Hypothetical protein MGC20781	5.37E-03	33551.02	Q969T7	1	1	1
294	D	Q96AG4 (Q96AG4) Hypothetical protein PRO1855	9.06E-03	34908.9	Q96AG4	1	1	1
295	A	ISG20_HUMAN (Q96AZ6) Interferon-stimulated gene 20 k?	9.06E-05	20350.62	Q96AZ6	1	1	1
296	E	DGC14_HUMAN (Q96DF8) DGCR14 protein (DiGeorge sy?	5.80E-04	52535.89	Q96DF8	1	1	1
297	C	GMCL1_HUMAN (Q96IK5) Germ cell-less protein-like 1	7.74E-03	58647.47	Q96IK5	1	1	1
298	A	Q96LU7 (Q96LU7) Hypothetical protein FLJ25056	1.08E-03	31208.16	Q96LU7	1	1	1
299	A	KAD7_HUMAN (Q96M32) Putative adenylate kinase 7 (EC?	9.64E-03	82620.65	Q96M32	1	1	1
300	E	IPO9_HUMAN (Q96P70) Importin-9 (Imp9) (Ran-binding p?	7.94E-04	115757.8	Q96P70	1	1	1
301	A	DB118_HUMAN (Q96PH6) Beta-defensin 118 precursor (?	5.68E-03	13604.79	Q96PH6	1	1	1
302	D	VPS35_HUMAN (Q96QK1) Vacuolar protein sorting 35 (V?	4.26E-03	91649.07	Q96QK1	1	1	1
303	E	MAGI1_HUMAN (Q96QZ7) Membrane associated guanyla?	7.80E-03	164540.2	Q96QZ7	1	1	1
304	D	MCCA_HUMAN (Q96RQ3) Methylcrotonoyl-CoA carboxyla?	3.52E-03	80382.04	Q96RQ3	1	1	1
305	C	MINT_HUMAN (Q96T58) Msx2-interacting protein (SPEN?	2.49E-03	402004.3	Q96T58	1	1	1
306	E	NIBL_HUMAN (Q96TA1) Niban-like protein (Meg-3)	6.21E-03	82631.11	Q96TA1	1	1	1
307	B	K1C12_HUMAN (Q99456) Keratin, type I cytoskeletal 12 (?	1.59E-03	53478.53	Q99456	1	1	1
308	C	SPS2_HUMAN (Q99611) Selenide, water dikinase 2 (EC 2?	2.61E-03	47227.85	Q99611	1	1	1
309	D	KIF2C_HUMAN (Q99661) Kinesin-like protein KIF2C (Mito?	5.02E-03	81261.21	Q99661	1	1	1
310	E	CLP24_HUMAN (Q9BSN7) Claudin-like protein 24	2.48E-03	24523.55	Q9BSN7	1	1	1
311	E	DATF1_HUMAN (Q9BTC0) Death-associated transcription ?	7.61E-03	129070.5	Q9BTC0	1	1	1
312	E	CHST6_HUMAN (Q9GZX3) Carbohydrate sulfotransferase?	5.32E-03	44071.2	Q9GZX3	1	1	1
313	C	TNKS2_HUMAN (Q9H2K2) Tankyrase 2 (EC 2.4.2.30) (TA?	1.90E-05	126838.5	Q9H2K2	1	1	1
314	C	Q9H2M8 (Q9H2M8) DC28	8.59E-03	64005.01	Q9H2M8	1	1	1

TABLE 5-continued

Proteins identified in 25 runs (5 patients with diagnosed Retinal Detachment)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	counts in R[?	?tot ids in 25 runs
315	E	SMRCD_HUMAN (Q9H4L7) SWI/SNF-related, matrix ass?	7.44E-03	117299.9	Q9H4L7	1	1	1
316	E	SYP2L_HUMAN (Q9H987) Synaptopodin 2-like protein	7.97E-03	102406.1	Q9H987	1	1	1
317	C	Q9H9B0 (Q9H9B0) Hypothetical protein FLJ12883	9.96E-03	91169.25	Q9H9B0	1	1	1
318	A	Q9H9B6 (Q9H9B6) Hypothetical protein FLJ12873	4.63E-03	71307.3	Q9H9B6	1	1	1
319	D	LPHN3_HUMAN (Q9HAR2) Latrophilin-3 precursor (Calci?	9.90E-03	161709.3	Q9HAR2	1	1	1
320	A	MAGE1_HUMAN (Q9HCI5) Melanoma-associated antigen	6.56E-03	103189.7	Q9HCI5	1	1	1
321	D	OLFL3_HUMAN (Q9NRN5) Olfactomedin-like protein 3 pr?	1.86E-03	45981.32	Q9NRN5	1	1	1
322	D	TB22B_HUMAN (Q9NU19) TBC1 domain family member ?	3.31E-03	59044.32	Q9NU19	1	1	1
323	B	CT038_HUMAN (Q9NUV7) Protein C20orf38	7.71E-03	19679.8	Q9NUV7	1	1	1
324	A	Q9NXE3 (Q9NXE3) Hypothetical protein FLJ20298	8.80E-04	26243.39	Q9NXE3	1	1	1
325	E	THUM1_HUMAN (Q9NXG2) THUMP domain containing p?	7.48E-03	39290.82	Q9NXG2	1	1	1
326	B	TE2IP_HUMAN (Q9NYB0) Telomeric repeat binding factor	1.44E-03	44232.88	Q9NYB0	1	1	1
327	E	ZN226_HUMAN (Q9NYT6) Zinc finger protein 226	4.95E-03	91861.71	Q9NYT6	1	1	1
328	A	GSCR1_HUMAN (Q9NZM4) Glioma tumor suppressor car?	6.54E-03	152898.4	Q9NZM4	1	1	1
329	B	HCN3_HUMAN (Q9P1Z3) Potassium/sodium hyperpolariz?	5.36E-03	85977.23	Q9P1Z3	1	1	1
330	A	CEP72_HUMAN (Q9P209) Centrosomal protein of 72 kDa?	1.96E-03	71673.01	Q9P209	1	1	1
331	A	CING_HUMAN (Q9P2M7) Cingulin	5.06E-03	136303.7	Q9P2M7	1	1	1
332	A	COPG2_HUMAN (Q9UBF2) Coatomer gamma-2 subunit (?	6.47E-03	97559.69	Q9UBF2	1	1	1
333	B	OPT_HUMAN (Q9UBM4) Opticin precursor (Oculoglycan)	4.68E-07	37237.39	Q9UBM4	1	1	1
334	D	SL9A2_HUMAN (Q9UBY0) Sodium/hydrogen exchanger 2?	6.23E-04	91461.34	Q9UBY0	1	1	1
335	E	Q9UJU1 (Q9UJU1) Cytovillin 2 (Fragment)	8.20E-03	16251.62	Q9UJU1	1	1	1
336	C	STML2_HUMAN (Q9UJZ1) Stomatin-like protein 2 (SLP-2)?	2.48E-03	38510.22	Q9UJZ1	1	1	1
337	C	MYH13_HUMAN (Q9UKX3) Myosin-13 (Myosin heavy cha?	5.60E-03	223539.2	Q9UKX3	1	1	1
338	D	TTC7A_HUMAN (Q9ULT0) Tetratricopeptide repeat protei?	6.23E-03	96123.27	Q9ULT0	1	1	1
339	E	ALK_HUMAN (Q9UM73) ALK tyrosine kinase receptor pre?	9.57E-03	176304.4	Q9UM73	1	1	1
340	D	ICAM5_HUMAN (Q9UMF0) Intercellular adhesion molecul?	2.21E-03	97270.1	Q9UMF0	1	1	1
341	E	PCDA7_HUMAN (Q9UN72) Protocadherin alpha 7 precurs?	5.95E-03	100802.9	Q9UN72	1	1	1
342	C	SOX13_HUMAN (Q9UN79) SOX-13 protein (Type 1 diabe?	7.41E-03	98718.72	Q9UN79	1	1	1
343	E	RHG26_HUMAN (Q9UNA1) Rho-GTPase-activating protei?	9.52E-03	92176.67	Q9UNA1	1	1	1
344	A	TF2AY_HUMAN (Q9UNN4) TFIIA-alpha and beta-like fact?	8.05E-03	52412.98	Q9UNN4	1	1	1
345	E	CNTN6_HUMAN (Q9UQ52) Contactin 6 precursor (Neural?	5.55E-03	113885.1	Q9UQ52	1	1	1
346	A	NALDL_HUMAN (Q9UQQ1) N-acetylated-alpha-linked aci?	1.21E-03	80574.27	Q9UQQ1	1	1	1
347	C	ADIP_HUMAN (Q9Y2D8) Afadin- and alpha-actinin-binding?	5.45E-03	71191.48	Q9Y2D8	1	1	1
348	D	CG141_HUMAN (Q9Y3E0) UPF0198 protein CGI-141	5.94E-05	15415.4	Q9Y3E0	1	1	1
349	D	ZN337_HUMAN (Q9Y3M9) Zinc finger protein 337	4.48E-03	86819.26	Q9Y3M9	1	1	1
350	C	TLN1_HUMAN (Q9Y490) Talin-1	3.76E-03	269596.3	Q9Y490	1	1	1
351	C	PCDGB_HUMAN (Q9Y5H2) Protocadherin gamma A11 pr?	9.51E-03	101480.6	Q9Y5H2	1	1	1
352	A	WIF1_HUMAN (Q9Y5W5) Wnt inhibitory factor 1 precurso?	5.15E-03	41499.8	Q9Y5W5	1	1	1
353	B	S12A7_HUMAN (Q9Y666) Solute carrier family 12 membe?	1.59E-04	119072.7	Q9Y666	1	1	1
354	D	SNCAP_HUMAN (Q9Y6H5) Synphilin-1 (Alpha-synuclein-i?	5.97E-03	100319	Q9Y6H5	1	1	1

? indicates text missing or illegible when filed

[0063]

TABLE 6

Proteins identified in 25 runs (5 patients with diagnosed Macular Hole)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Counts	Tot IDS 25 runs
1	HGFIL	Serotransferrin precursor	4.22E-14	76999.66	P02787	20	5	25
2	FGILH	Serum albumin precursor	1.00E-30	69321.63	P02768	11	5	25
3	FLGIH	Keratin, type II cytoskeletal 1	9.37E-12	65846.88	P04264	7	5	24
4	HILFG	Interphotoreceptor retinoid-binding protein precursor	2.22E-16	135277.8	P10745	5	5	24
5	FLGHI	Hypothetical protein	1.27E-07	20655.36	Q569I7	3	5	24
6	LFIGH	Clusterin precursor	2.92E-08	52461.05	P10909	1	5	24
7	HLIFG	Transthyretin precursor	1.00E-30	15877.05	P02766	4	5	23
8	FHGIL	Ig gamma-1 chain C region	1.35E-12	36083.16	P01857	7	5	19
9	LFIHG	Keratin 10	1.11E-15	57212.99	Q14664	1	5	17
10	LGFHI	Keratin, type I cytoskeletal 10	8.41E-08	59482.76	P13645	5	5	16
11	HFGLI	Alpha-1-acid glycoprotein 1 precursor	5.78E-12	23496.77	P02763	2	5	15
12	FGHLI	Apolipoprotein A-II precursor	6.42E-11	11167.9	P02652	1	5	15
13	FGIH	Apolipoprotein A-I precursor	3.44E-14	30758.94	P02647	9	4	15

TABLE 6-continued

Proteins identified in 25 runs (5 patients with diagnosed Macular Hole)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Counts	Tot IDS 25 runs
14	FLIHG	Hemopexin precursor	5.33E−12	51643.32	P02790	5	5	14
15	LGIH	PH domain containing protein	3.94E−05	53317.19	Q8TD55	1	4	14
16	FHI	Hemoglobin delta subunit	1.04E−12	15914.25	P02042	7	3	14
17	LHGIF	Pigment epithelium-derived factor precursor	1.57E−08	46313.36	P36955	3	5	12
18	FILHG	Hypothetical protein FLJ42076	8.88E−05	21036.72	Q6ZVU4	1	5	12
19	FIGLH	Transcription factor NF-E4	1.59E−04	19006.73	Q86UQ8	1	5	12
20	HGLF	Keratin, type II cytoskeletal	2.77E−09	65825.37	P35908	1	4	12
21	HLIG	Keratin, type II cytoskeletal 1b	4.43E−06	61650.4	Q7Z794	1	4	12
22	FHGI	Alpha 2 globin variant	1.89E−12	15270.94	Q53F97	5	4	10
23	GLFH	Keratin, type I cytoskeletal 9	2.61E−10	62091.76	P35527	1	4	10
24	IGLH	Hypothetical protein	6.10E−04	9188.304	Q6PHR9	1	4	10
25	FLIH	Hypothetical protein DKFZp686I04196	3.51E−11	46031.66	Q6N093	3	4	9
26	GHIL	Hypothetical protein FLJ40259	3.36E−04	66086.88	Q8N7W7	1	4	9
27	HLGI	Nuclear receptor-interacting factor	1.57E−03	52754.03	Q8WY14	1	4	9
28	FGH	Alpha-1-antitrypsin precursor	2.51E−13	46707.09	P01009	3	3	9
29	ILH	Protein KIAA1683	2.65E−04	127611.8	Q9H0B3	1	3	9
30	FHGI	IGKC protein	1.11E−15	25919.92	Q502W4	3	4	8
31	HFLI	Dickkopf-related protein 3 precursor	4.25E−08	38266.07	Q9UBP4	2	4	8
32	GHL	Adenylyl cyclase type V	1.51E−04	39312.25	Q7RTV7	1	3	8
33	HFIL	Tumor necrosis factor	2.32E−03	20099.21	Q5VWH1	1	4	7
34	GIHL	HNRBF-2	2.48E−04	31787.43	Q9H2I2	1	4	7
35	FIH	Beta-globin gene from a thalassemia patient	3.34E−11	18918.59	Q14473	7	3	7
36	HIG	Epsilon-sarcoglycan precursor	4.19E−04	49722.25	O43556	1	3	7
37	FIG	Receptor-type tyrosine-protein phosphatase delta	2.34E−03	214623.5	P23468	1	3	7
38	FHG	Vitamin D-binding protein	2.26E−10	52902.04	Q6GTG1	1	3	7
39	HIL	Cytochrome P450, family 20, subfamily A,	2.11E−06	52460.08	Q8WWA9	1	3	7
40	LHGI	Double-stranded RNA-binding protein	1.64E−03	63227.92	O95793	1	4	6
41	HLIG	Hypothetical protein TMEM55A	3.73E−05	28062.26	Q8N4L2	1	4	6
42	ILH	KIAA1200 protein	1.07E−03	155607.6	Q9ULM0	2	3	6
43	GHF	Complement C4-A precursor	3.96E−08	192649.5	P0C0L4	1	3	6
44	FG	Hypothetical protein DKFZp686J11235	4.12E−10	54424.95	Q6MZW0	4	2	6
45	FG	Complement C3 precursor	4.12E−10	187045.3	P01024	3	2	6
46	FH	IGLC2 protein	1.61E−13	24784.13	Q567P1	3	2	6
47	HF	RhoGTPase regulating protein variant	5.25E−04	130153.4	Q6RJU1	1	2	6
48	ILFG	Tuberin (Tuberous sclerosis 2 protein)	1.14E−04	200621.4	P49815	1	4	5
49	GHIL	Hypothetical protein FAM33A	1.51E−03	14179.33	Q8WVK7	1	4	5
50	GLI	Vacuolar protein sorting 13A	3.28E−03	360046.1	Q96RL7	2	3	5
51	LHF	Apolipoprotein E precursor	3.48E−08	36131.79	P02649	1	3	5
52	LGH	Novel protein	1.60E−03	107275.7	Q5T7N3	1	3	5
53	IGH	Hypothetical protein FLJ35435	1.80E−05	65308.66	Q8NAF6	1	3	5
54	GHL	Kallikrein-14 precursor	5.06E−04	27434.89	Q9P0G3	1	3	5
55	FH	Apolipoprotein A-IV precursor	4.69E−12	45343.52	P06727	3	2	5
56	HF	KIAA0425 protein	2.12E−04	141056.5	O43308	1	2	5
57	LH	MYH7B protein	5.17E−04	114574.5	Q96I57	1	2	5
58	F	Ceruloplasmin precursor	3.13E−10	122127.6	P00450	2	1	5
59	L	Alpha-2-macroglobulin precursor	5.36E−09	163174.3	P01023	2	1	5
60	F	VH1 protein precursor	1.60E−07	17292.5	O95978	1	1	5
61	L	Osteopontin precursor	5.20E−10	35401.25	P10451	1	1	5
62	GHL	Intercellular adhesion molecule 3 precursor	2.21E−03	59345.85	P32942	1	3	4
63	FGL	PML-RARA regulated adaptor molecule	1.05E−03	73950.18	Q8N6W7	1	3	4
64	HIG	Protein C19orf10 precursor (Stromal cell-derived GF)	2.10E−03	18783.32	Q969H8	1	3	4
65	GIL	Calcium-independent phospholipase A2	4.48E−03	88421.11	Q9NP80	1	3	4
66	FG	Alpha-2-HS-glycoprotein precursor	1.29E−06	39299.73	P02765	2	2	4
67	IL	Dystroglycan precursor	1.67E−03	97519.91	Q14118	2	2	4
68	GI	Sortilin-related receptor precursor	2.94E−04	248280	Q92673	1	2	4
69	G	Ig kappa chain V-II region	4.45E−07	12668.32	P01614	1	1	4
70	G	Ig kappa chain V-II region MIL	4.45E−07	12048.05	P01616	1	1	4
71	F	Ig gamma-3 chain C region	2.03E−09	32309.81	P01860	1	1	4
72	F	Beta-2-glycoprotein I precursor	3.39E−08	38272.67	P02749	1	1	4
73	F	Piccolo protein (Aczonin)	4.86E−04	566313.1	Q9Y6V0	1	1	4
74	HLI	Zinc finger protein 197	4.48E−04	118770.8	O14709	1	3	3
75	FGH	Alpha-1B-glycoprotein precursor	1.32E−09	54238.7	P04217	1	3	3
76	HLG	FES_HUMAN (P07332) Proto-oncogene tyrosine-protein k?	1.22E−03	93412.31	P07332	1	3	3
77	GIF	Multidrug resistance-associated protein 1	3.76E−03	171450.5	P33527	1	3	3
78	FIG	Thrombospondin-2 precursor	1.62E−03	129871.5	P35442	1	3	3
79	LIH	Neuronal membrane glycoprotein M6-a	4.39E−03	31188.39	P51674	1	3	3
80	HLG	WD-repeat protein 9	1.15E−03	257060.4	Q9NSI6	1	3	3
81	HLI	ADAM 28 precursor	2.13E−03	87151.09	Q9UKQ2	1	3	3
82	FL	Gelsolin precursor	2.02E−04	85644.25	P06396	1	2	3
83	GH	Basement membrane-specific heparan sulfate proteoglyca?	3.32E−03	468528.2	P98160	1	2	3

TABLE 6-continued

Proteins identified in 25 runs (5 patients with diagnosed Macular Hole)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Counts	Tot IDS 25 runs
84	LH	Para-hydroxybenzoate-polyprenyltransferase	3.67E−03	45578.79	Q684R2	1	2	3
85	FI	HSAL5836	2.94E−03	9682.161	Q6UWG9	1	2	3
86	IH	Hypothetical protein FLJ44832	2.50E−03	139335.1	Q6ZQT3	1	2	3
87	IH	Hypothetical protein FLJ40243	3.12E−03	180566.4	Q7Z745	1	2	3
88	IL	Hypothetical protein KIAA1505	2.15E−03	112734.9	Q8IYE0	1	2	3
89	LI	Keratin, type I cytoskeletal 12	7.68E−06	53478.53	Q99456	1	2	3
90	L	Nuclear pore complex protein Nup153	5.51E−03	153793.4	P49790	1	1	3
91	F	Keratin, type II cytoskeletal 2	4.77E−04	65830.09	Q01546	1	1	3
92	H	Secreted frizzled-related protein 3 precursor	5.30E−06	36230.29	Q92765	1	1	3
93	GI	Zinc finger protein 185	4.64E−03	49156.87	O15231	1	2	2
94	IL	A-kinase anchor protein 3	2.47E−05	94676.41	O75969	1	2	2
95	HL	Alpha-1-antichymotrypsin precursor	2.73E−03	47620.63	P01011	1	2	2
96	FG	Plasma retinol-binding protein precursor	6.64E−03	22995.26	P02753	1	2	2
97	HG	Filamin-A	1.64E−03	280583.4	P21333	1	2	2
98	HL	G protein-activated inward rectifier potassium channel	1.22E−03	56566.8	P48549	1	2	2
99	GI	Telomeric repeat binding factor 1	2.43E−03	50313.11	P54274	1	2	2
100	HG	Trichohyalin	3.52E−03	247074.4	Q07283	1	2	2
101	IH	Kinesin-like protein KIF1A	3.48E−03	190963.1	Q12756	1	2	2
102	LH	Myosin-7A	1.43E−03	254242.5	Q13402	1	2	2
103	GH	Ubiquitin conjugation factor E4	7.16E−05	122482	Q14139	1	2	2
104	IL	UDP-N-acetylhexosamine pyrophosphorylase	2.88E−03	58731.98	Q16222	1	2	2
105	GH	Alpha-internexin	6.89E−04	55357.48	Q16352	1	2	2
106	GF	Maguin-like protein variant II	6.04E−03	61848.88	Q5SGD5	1	2	2
107	LH	RIF1_HUMAN (Q5UIP0) Telomere-associated protein RIF?	2.56E−03	274293	Q5UIP0	1	2	2
108	GH	Q6P4H8 (Q6P4H8) Hypothetical protein LOC134145	3.97E−03	26123.47	Q6P4H8	1	2	2
109	GH	TRPM8_HUMAN (Q7Z2W7) Transient receptor potential c?	7.58E−04	127573.3	Q7Z2W7	1	2	2
110	HL	Q8IV47 (Q8IV47) Fibromodulin,	6.22E−04	43151.57	Q8IV47	1	2	2
111	LG	Q8N9V7 (Q8N9V7) Hypothetical protein FLJ36157	6.30E−04	77526.28	Q8N9V7	1	2	2
112	HG	LIPB2_HUMAN (Q8ND30) Liprin-beta 2 (Protein tyrosine p?	3.34E−03	98383.37	Q8ND30	1	2	2
113	LG	Q8NDD1 (Q8NDD1) Hypothetical protein DKFZp547B1713?	5.52E−03	32732.49	Q8NDD1	1	2	2
114	GF	SYNE1_HUMAN (Q8NF91) Nesprin-1 (Nuclear envelope s?	1.60E−03	1010433	Q8NF91	1	2	2
115	LH	Q8NHQ3 (Q8NHQ3) RBBP8 protein	6.21E−05	102594.6	Q8NHQ3	1	2	2
116	LI	PCSK5_HUMAN (Q92824) Proprotein convertase subtilisir?	2.56E−04	101708.3	Q92824	1	2	2
117	LH	K1849_HUMAN (Q96JH8) Protein KIAA1849	6.35E−03	116630	Q96JH8	1	2	2
118	HL	Q96S02 (Q96S02) Hypothetical protein gs80	3.06E−03	25483.99	Q96S02	1	2	2
119	LH	MINT_HUMAN (Q96T58) Msx2-interacting protein (SPEN ?	2.71E−03	402004.3	Q96T58	1	2	2
120	LH	GGA2_HUMAN (Q9UJY4) ADP-ribosylation factor binding	3.44E−03	67133.75	Q9UJY4	1	2	2
121	HL	Q9ULH9 (Q9ULH9) KIAA1241 protein (Fragment)	1.73E−05	97158.45	Q9ULH9	1	2	2
122	LG	Q9Y2W9 (Q9Y2W9) Endocrine regulator	1.57E−04	231761.3	Q9Y2W9	1	2	2
123	LH	CT004_HUMAN (Q9Y312) Protein C20orf4	5.11E−03	43444.13	Q9Y312	1	2	2
124	GF	KIF3A_HUMAN (Q9Y496) Kinesin-like protein KIF3A (Micr?	8.14E−04	80335.11	Q9Y496	1	2	2
125	I	CAC1G_HUMAN (O43497) Voltage-dependent T-type calc?	2.51E−03	262301.1	O43497	1	1	2
126	I	GLU2B_HUMAN (P14314) Glucosidase II beta subunit pre?	1.97E−03	59258.88	P14314	1	1	2
127	F	PTGDS_HUMAN (P41222) Prostaglandin-H2 D-isomerase?	7.86E−08	21015.35	P41222	1	1	2
128	H	ATS12_HUMAN (P58397) ADAMTS-12 precursor (EC 3.4.?	2.16E−03	177429.5	P58397	1	1	2
129	F	HBG1_HUMAN (P69891) Hemoglobin gamma-1 subunit (?	8.59E−03	15999.27	P69891	1	1	2
130	F	APXL_HUMAN (Q13796) Apical-like protein (APXL protein?	1.55E−03	176302	Q13796	1	1	2
131	I	UBP10_HUMAN (Q14694) Ubiquitin carboxyl-terminal hyd?	1.05E−03	87079.84	Q14694	1	1	2
132	I	Q15394 (Q15394) KIAA0005 protein (Fragment)	6.56E−04	48615.16	Q15394	1	1	2
133	G	Q4V312 (Q4V312) Colony stimulating factor 2 receptor, alp?	6.07E−04	46871.63	Q4V312	1	1	2
134	I	Q4V9L7 (Q4V9L7) NGRN protein (Fragment)	4.36E−03	31332.13	Q4V9L7	1	1	2
135	I	Q53SW1 (Q53SW1) Hypothetical protein FLJ20254	2.53E−03	48539.34	Q53SW1	1	1	2
136	H	Q5BLQ2 (Q5BLQ2) Mucin	5.22E−03	289658.2	Q5BLQ2	1	1	2
137	F	Q5JRC3 (Q5JRC3) RPEL repeat containing 1 (Fragment)	4.33E−03	25543.2	Q5JRC3	1	1	2
138	F	Q5T2J8 (Q5T2J8) OTTHUMP00000018139 (Fragment)	1.44E−03	97147.08	Q5T2J8	1	1	2
139	H	Q659E3 (Q659E3) Hypothetical protein DKFZp434I138	1.86E−03	78784.1	Q659E3	1	1	2
140	G	Q65ZC8 (Q65ZC8) Single-chain Fv (Fragment)	3.05E−05	26110.55	Q65ZC8	1	1	2
141	F	Q6NUI2 (Q6NUI2) LOC150763 protein	5.06E−04	87507.18	Q6NUI2	1	1	2
142	L	Q6PHR8 (Q6PHR8) Hypothetical protein (Fragment)	2.10E−03	33452.8	Q6PHR8	1	1	2
143	G	Q6ZTG8 (Q6ZTG8) Hypothetical protein FLJ44670	3.09E−03	115755	Q6ZTG8	1	1	2
144	G	Q6ZV44 (Q6ZV44) Hypothetical protein FLJ43007	6.95E−04	19332.49	Q6ZV44	1	1	2
145	F	Q702P2 (Q702P2) VPS13C-2B protein	4.75E−03	407940.5	Q702P2	1	1	2
146	I	VPS36_HUMAN (Q86VN1) Vacuolar protein sorting protei?	1.09E−03	43788.79	Q86VN1	1	1	2
147	F	Q8N7Q3 (Q8N7Q3) Hypothetical protein FLJ40479	1.50E−03	45893.4	Q8N7Q3	1	1	2
148	I	RYR2_HUMAN (Q92736) Ryanodine receptor 2 (Cardiac?	6.98E−03	564136.1	Q92736	1	1	2
149	I	TOP1M_HUMAN (Q969P6) DNA topoisomerase I, mitoch?	5.03E−03	69828.34	Q969P6	1	1	2
150	F	Q96EK0 (Q96EK0) Hypothetical protein MGC4655	1.44E−03	41865.86	Q96EK0	1	1	2
151	I	GPTC3_HUMAN (Q96I76) G patch domain containing pro?	4.90E−03	59301.11	Q96I76	1	1	2
152	F	Q9BRQ8 (Q9BRQ8) Apoptosis-inducing factor (AIF)-like m?	2.48E−03	40501.28	Q9BRQ8	1	1	2

TABLE 6-continued

Proteins identified in 25 runs (5 patients with diagnosed Macular Hole)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Counts	Tot IDS 25 runs
153	I	Q9BS34 (Q9BS34) Zinc finger protein 670 (Hypothetical pr?	7.16E-03	44574.27	Q9BS34	1	1	2
154	I	PLEA5_HUMAN (Q9HAU0) Pleckstrin homology domain-c?	3.50E-03	127384.5	Q9HAU0	1	1	2
155	G	Q9NXK0 (Q9NXK0) Hypothetical protein FLJ20202	1.52E-03	44899.86	Q9NXK0	1	1	2
156	F	COPG2_HUMAN (Q9UBF2) Coatomer gamma-2 subunit (?	1.54E-03	97559.69	Q9UBF2	1	1	2
157	I	RT02_HUMAN (Q9Y399) Mitochondrial 28S ribosomal pro?	9.43E-05	33228.08	Q9Y399	1	1	2
158	H	Q5VXU2 (Q5VXU2) Propionyl Coenzyme A carboxylase, a?	1.34E-04	80235.37	Q5VXU2	2	1	1
159	G	SGK1_HUMAN (O00141) Serine/threonine-protein kinase?	1.08E-03	48925.35	O00141	1	1	1
160	I	TR10A_HUMAN (O00220) Tumor necrosis factor receptor	3.21E-04	50028.81	O00220	1	1	1
161	F	O14913 (O14913) Kruppel-associated box protein	2.39E-03	52045.66	O14913	1	1	1
162	G	HAT1_HUMAN (O14929) Histone acetyltransferase type B?	1.43E-03	49480.84	O14929	1	1	1
163	F	O15014 (O15014) KIAA0295 protein (Fragment)	2.79E-03	106382.5	O15014	1	1	1
164	L	PDZK3_HUMAN (O15018) PDZ domain containing protein ?	2.91E-03	301423.4	O15018	1	1	1
165	F	DMN_HUMAN (O15061) Desmuslin	2.87E-03	172662.5	O15061	1	1	1
166	G	SOX12_HUMAN (O15370) SOX-12 protein (SOX-22 prote?	1.92E-03	34279.67	O15370	1	1	1
167	F	O43719 (O43719) HIV TAT specific factor 1	2.48E-03	85800.38	O43719	1	1	1
168	F	KPRB_HUMAN (O60256) Phosphoribosyl pyrophosphate ?	3.63E-05	40899.39	O60256	1	1	1
169	H	LSD1_HUMAN (O60341) Lysine-specific histone demethyl?	2.99E-04	92844.88	O60341	1	1	1
170	F	TBCD4_HUMAN (O60343) TBC1 domain family member ?	3.13E-03	146470.8	O60343	1	1	1
171	L	FZD6_HUMAN (O60353) Frizzled 6 precursor (Frizzled-6)	1.13E-03	79222.06	O60353	1	1	1
172	I	TLR5_HUMAN (O60602) Toll-like receptor 5 precursor (To?	5.88E-03	97663.38	O60602	1	1	1
173	H	O60826 (O60826) JM1 protein (Hypothetical protein CCD?	2.74E-03	70712.32	O60826	1	1	1
174	G	GAS7_HUMAN (O60861) Growth-arrest-specific protein 7	3.84E-04	47236.75	O60861	1	1	1
175	L	O75179 (O75179) KIAA0697 protein (Fragment)	1.34E-03	263079.2	O75179	1	1	1
176	F	PRPU_HUMAN (O94906) U5 snRNP-associated 102 kDa	8.74E-03	106857.9	O94906	1	1	1
177	F	SLIK3_HUMAN (O94933) SLIT and NTRK-like protein 3 pr?	9.29E-03	108937.1	O94933	1	1	1
178	L	O95285 (O95285) Erythroblast macrophage protein EMP	8.16E-03	43879.31	O95285	1	1	1
179	L	ZIC2_HUMAN (O95409) Zinc finger protein ZIC 2 (Zinc fin?	2.32E-03	54971.09	O95409	1	1	1
180	L	SVIL_HUMAN (O95425) Supervillin (Archvillin) (p205/p250?	6.30E-03	247550.6	O95425	1	1	1
181	F	FMNL_HUMAN (O95466) Formin-like 1 protein (Formin-lik?	9.19E-03	121750.9	O95466	1	1	1
182	H	HPT_HUMAN (P00738) Haptoglobin precursor [Contains: I?	2.71E-05	45176.59	P00738	1	1	1
183	H	CYTC_HUMAN (P01034) Cystatin C precursor (Neuroend?	2.77E-05	15789.08	P01034	1	1	1
184	G	KV2B_HUMAN (P01615) Ig kappa chain V-II region FR	5.81E-04	12651.75	P01615	1	1	1
185	I	CO3A1_HUMAN (P02461) Collagen alpha 1(III) chain prec?	4.25E-03	138470.2	P02461	1	1	1
186	L	K2C6A_HUMAN (P02538) Keratin, type II cytoskeletal 6A (?	7.41E-07	59877.28	P02538	1	1	1
187	F	FIBG_HUMAN (P02679) Fibrinogen gamma chain precurs?	1.61E-04	51478.88	P02679	1	1	1
188	H	CRP_HUMAN (P02741) C-reactive protein precursor [Con?	9.82E-03	25022.68	P02741	1	1	1
189	I	AMBP_HUMAN (P02760) AMBP protein precursor [Contai?	1.37E-04	38973.99	P02760	1	1	1
190	F	VTNC_HUMAN (P04004) Vitronectin precursor (Serum sp?	5.97E-08	54271.23	P04004	1	1	1
191	F	CSF1R_HUMAN (P07333) Macrophage colony-stimulating?	8.66E-03	107915.2	P07333	1	1	1
192	F	RET_HUMAN (P07949) Proto-oncogene tyrosine-protein k?	4.41E-03	124239.4	P07949	1	1	1
193	L	RARA_HUMAN (P10276) Retinoic acid receptor alpha (RA?	5.40E-04	50738.42	P10276	1	1	1
194	F	CP2D6_HUMAN (P10635) Cytochrome P450 2D6 (EC 1.1?	4.37E-03	55766.2	P10635	1	1	1
195	H	C1TC_HUMAN (P11586) C-1-tetrahydrofolate synthase, c?	2.60E-03	101364.5	P11586	1	1	1
196	L	CSPG2_HUMAN (P13611) Versican core protein precurso?	7.15E-06	372589	P13611	1	1	1
197	L	K1C13_HUMAN (P13646) Keratin, type I cytoskeletal 13 (?	4.22E-03	49555.45	P13646	1	1	1
198	H	PDE6A_HUMAN (P16499) Rod cGMP-specific 3',5'-cyclic ?	9.31E-03	99438.76	P16499	1	1	1
199	F	A1AG2_HUMAN (P19652) Alpha-1-acid glycoprotein 2 pre?	4.50E-06	23587.64	P19652	1	1	1
200	H	NEBU_HUMAN (P20929) Nebulin	7.84E-04	772742.8	P20929	1	1	1
201	F	PRDX2_HUMAN (P32119) Peroxiredoxin 2 (EC 1.11.1.15)	9.46E-03	21747.2	P32119	1	1	1
202	L	HYES_HUMAN (P34913) Epoxide hydrolase 2 (EC 3.3.2.3?	4.29E-04	62574.77	P34913	1	1	1
203	G	MYH11_HUMAN (P35749) Myosin-11 (Myosin heavy chair?	2.94E-03	227197.9	P35749	1	1	1
204	G	BRCA1_HUMAN (P38398) Breast cancer type 1 susceptib?	9.37E-03	207590.9	P38398	1	1	1
205	L	RL13A_HUMAN (P40429) 60S ribosomal protein L13a (23?	9.48E-03	23431.35	P40429	1	1	1
206	I	STAT1_HUMAN (P42224) Signal transducer and activator?	7.68E-03	87279.63	P42224	1	1	1
207	H	RHG25_HUMAN (P42331) Rho-GTPase-activating protein?	8.14E-03	72385.19	P42331	1	1	1
208	F	AFAM_HUMAN (P43652) Afamin precursor (Alpha-albumi?	8.12E-05	69024.09	P43652	1	1	1
209	H	RBP2_HUMAN (P49792) Ran-binding protein 2 (RanBP2)	3.16E-03	357991.4	P49792	1	1	1
210	I	TCPQ_HUMAN (P50990) T-complex protein 1, theta subu?	6.50E-03	59451.57	P50990	1	1	1
211	F	DPOG1_HUMAN (P54098) DNA polymerase gamma subu?	3.35E-03	139473.4	P54098	1	1	1
212	H	ELL_HUMAN (P55199) RNA polymerase II elongation fact?	5.19E-03	68222.91	P55199	1	1	1
213	G	CAD12_HUMAN (P55289) Brain-cadherin precursor (BR-c?	1.52E-03	88219.76	P55289	1	1	1
214	H	KR102_HUMAN (P60368) Keratin-associated protein 10-2?	1.72E-03	25595.75	P60368	1	1	1
215	H	PSME3_HUMAN (P61289) Proteasome activator complex	5.60E-03	29487.55	P61289	1	1	1
216	L	RT21_HUMAN (P82921) Mitochondrial 28S ribosomal prot?	2.34E-03	10734.48	P82921	1	1	1
217	I	NSBP1_HUMAN (P82970) Nucleosomal binding protein 1	1.93E-03	31505.95	P82970	1	1	1
218	G	SCN7A_HUMAN (Q01118) Sodium channel protein type V	1.66E-03	193345	Q01118	1	1	1
219	I	BDH_HUMAN (Q02338) D-beta-hydroxybutyrate dehydrog?	5.68E-03	38132.47	Q02338	1	1	1
220	L	CK013_HUMAN (Q02833) Protein C11orf13 (HRAS1-relat?	3.17E-03	39920.6	Q02833	1	1	1

TABLE 6-continued

Proteins identified in 25 runs (5 patients with diagnosed Macular Hole)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Counts	Tot IDS 25 runs
221	L	BPA1_HUMAN (Q03001) Bullous pemphigoid antigen 1 is?	7.39E-03	371976.9	Q03001	1	1	1
222	F	ATP7A_HUMAN (Q04656) Copper-transporting ATPase 1	3.35E-03	163230	Q04656	1	1	1
223	L	APLP2_HUMAN (Q06481) Amyloid-like protein 2 precurso?	1.03E-09	86900.28	Q06481	1	1	1
224	L	TRDN_HUMAN (Q13061) Triadin	6.20E-03	81374.51	Q13061	1	1	1
225	F	CSN1_HUMAN (Q13098) COP9 signalosome complex su?	7.31E-03	53338.1	Q13098	1	1	1
226	H	NOG2_HUMAN (Q13823) Nucleolar GTP-binding protein 2?	9.59E-03	83603.43	Q13823	1	1	1
227	H	Q14159 (Q14159) KIAA0146 protein (Fragment)	1.44E-03	100592.3	Q14159	1	1	1
228	I	BMS1_HUMAN (Q14692) Ribosome biogenesis protein B?	3.76E-03	145715.5	Q14692	1	1	1
229	L	2A5D_HUMAN (Q14738) Serine/threonine protein phosph?	2.98E-03	69947.5	Q14738	1	1	1
230	F	RBBP5_HUMAN (Q15291) Retinoblastoma-binding protei?	9.99E-03	59044.69	Q15291	1	1	1
231	H	Q15299 (Q15299) RARB protein	2.59E-04	11644	Q15299	1	1	1
232	F	CDC37_HUMAN (Q16543) Hso90 co-chaperone Cdc37 (H?	8.92E-03	44440.05	Q16543	1	1	1
233	H	DUS5_HUMAN (Q16690) Dual specificity protein phospha?	3.16E-04	42080.39	Q16690	1	1	1
234	H	Q49AA0 (Q49AA0) ZNF642 protein	5.50E-03	61112.29	Q49AA0	1	1	1
235	G	Q4VC44 (Q4VC44) FLYWCH-type zinc finger 1, isoform a ?	1.11E-03	79985.74	Q4VC44	1	1	1
236	L	Q4VXM4 (Q4VXM4) Chromosome 20 open reading frame	2.21E-03	114932.5	Q4VXM4	1	1	1
237	F	Q53EU6 (Q53EU6) Hypothetical protein (Fragment)	9.80E-04	48673.52	Q53EU6	1	1	1
238	L	Q53RG2 (Q53RG2) Hypothetical protein CHRNG	4.34E-03	58259.47	Q53RG2	1	1	1
239	L	Q562E5 (Q562E5) KIAA0194 protein (Fragment)	3.73E-04	157553.1	Q562E5	1	1	1
240	G	Q59FI9 (Q59FI9) Ribosomal protein L12 variant (Fragmen?	6.72E-03	21469.49	Q59FI9	1	1	1
241	H	Q5JPU1 (Q5JPU1) Pyruvate dehydrogenase (Lipoamide) ?	3.07E-03	22743.74	Q5JPU1	1	1	1
242	L	Q5JTH6 (Q5JTH6) Exosomal core protein CSL4	5.99E-04	18804.54	Q5JTH6	1	1	1
243	L	Q5JX69 (Q5JX69) OTTHUMP00000031352	8.08E-03	19485.96	Q5JX69	1	1	1
244	G	Q5T1J6 (Q5T1J6) OTTHUMP00000030508	4.35E-03	17161.46	Q5T1J6	1	1	1
245	H	Q5TDG2 (Q5TDG2) Hydroxy-delta-5-steroid dehydrogena?	2.32E-03	42427.11	Q5TDG2	1	1	1
246	L	Q5TYW1 (Q5TYW1) Novel protein (Fragment)	4.42E-03	97254.69	Q5TYW1	1	1	1
247	G	Q5VXI2 (Q5VXI2) Myosin IIIA	7.99E-03	22191.69	Q5VX12	1	1	1
248	H	Q5VYM8 (Q5VYM8) Unc-13 homolog B (*C. elegans*)	2.31E-03	180563.2	Q5VYM8	1	1	1
249	I	Q5XPV5 (Q5XPV5) Sjogren syndrome antigen A1	5.68E-04	54089.2	Q5XPV5	1	1	1
250	F	Q63HP7 (Q63HP7) Hypothetical protein DKFZp686P1551	5.39E-03	65621.97	Q63HP7	1	1	1
251	H	Q659F3 (Q659F3) Hypothetical protein DKFZp434J194	4.86E-03	14956.27	Q659F3	1	1	1
252	F	CEP4_HUMAN (Q66GS9) Centrosomal protein 4 (Centros?	9.02E-04	133421.9	Q66GS9	1	1	1
253	I	Q68CI8 (Q68CI8) Hypothetical protein HMFT1272 (Fragm?	2.38E-03	48598.88	Q68CI8	1	1	1
254	L	Q68DL8 (Q68DL8) Hypothetical protein DKFZp781L0319	3.98E-03	84645.59	Q68DL8	1	1	1
255	F	S6A19_HUMAN (Q695T7) Sodium-dependent neutral ami?	5.44E-03	71063.29	Q695T7	1	1	1
256	L	Q6A334 (Q6A334) Mutated in bladder cancer 1	8.74E-03	61882.69	Q6A334	1	1	1
257	F	Q6IA31 (Q6IA31) FLJ14154 protein	7.48E-03	27415.97	Q6IA31	1	1	1
258	G	Q6IBW4 (Q6IBW4) Em: U62317.2 protein	6.70E-03	68183.7	Q6IBW4	1	1	1
259	I	Q6IE81 (Q6IE81) JADE1L protein	9.07E-03	95472.82	Q6IE81	1	1	1
260	I	Q6IF05 (Q6IF05) Olfactory receptor OR1-47	8.84E-04	37737.82	Q6IF05	1	1	1
261	I	ST6B1_HUMAN (Q6IMI4) Sulfotransferase 6B1 (EC 2.8.2.?	9.60E-03	30491.21	Q6IMI4	1	1	1
262	G	PTRF_HUMAN (Q6NZI2) Polymerase I and transcript rele?	1.14E-03	43449.88	Q6NZI2	1	1	1
263	I	Q6P3W7 (Q6P3W7) Similar to mouse D10Ertd802e protei?	9.06E-04	103642.4	Q6P3W7	1	1	1
264	F	Q6P658 (Q6P658) FNBP1 protein (Fragment)	6.14E-04	40759.38	Q6P658	1	1	1
265	H	GP133_HUMAN (Q6QNK2) Probable G-protein coupled re?	7.32E-03	96468.2	Q6QNK2	1	1	1
266	F	Q6UXX5 (Q6UXX5) ITI-like protein (Inter-alpha (Globulin) i?	6.30E-03	143097.8	Q6UXX5	1	1	1
267	H	Q6ZMV7 (Q6ZMV7) Hypothetical protein FLJ16641	5.36E-03	45118.72	Q6ZMV7	1	1	1
268	L	Q6ZMX7 (Q6ZMX7) Hypothetical protein FLJ16607	1.23E-03	147809.7	Q6ZMX7	1	1	1
269	L	Q6ZQN2 (Q6ZQN2) Hypothetical protein FLJ46846	2.18E-03	180573.9	Q6ZQN2	1	1	1
270	H	Q6ZVL2 (Q6ZVL2) Hypothetical protein FLJ42427	7.92E-03	15702.14	Q6ZVL2	1	1	1
271	F	Q6ZW87 (Q6ZW87) Hypothetical protein FLJ41443	5.09E-03	24773.63	Q6ZW87	1	1	1
272	I	Q7KYS7 (Q7KYS7) Hypothetical protein (Fragment)	1.53E-03	31128.16	Q7KYS7	1	1	1
273	F	Q7KZ97 (Q7KZ97) Antithrombin III variant	3.10E-06	52657.96	Q7KZ97	1	1	1
274	G	Q7RTS7 (Q7RTS7) Keratin 5c	4.83E-03	59333.45	Q7RTS7	1	1	1
275	F	CA036_HUMAN (Q7Z3Z2) Protein C1orf36	1.27E-04	22689.57	Q7Z3Z2	1	1	1
276	H	Q7Z402 (Q7Z402) Transmembrane channel-like protein 7	6.94E-03	83447.49	Q7Z402	1	1	1
277	I	Q7Z736 (Q7Z736) Hypothetical protein FLJ21019	7.52E-03	85273.38	Q7Z736	1	1	1
278	I	Q86VJ1 (Q86VJ1) E3 ligase for inhibin receptor	9.51E-03	289427.4	Q86VJ1	1	1	1
279	G	Q86WI3 (Q86WI3) NOD27	2.47E-03	204535	Q86WI3	1	1	1
280	L	Q86Y22 (Q86Y22) Alpha 1 type XXIII collagen	3.71E-03	51912.29	Q86Y22	1	1	1
281	F	Q8IUA7 (Q8IUA7) ATP-binding cassette sub-family A me?	5.35E-03	184241.6	Q8IUA7	1	1	1
282	G	Q8IUG8 (Q8IUG8) Carnitine transporter 2	6.69E-03	60830.3	Q8IUG8	1	1	1
283	F	Q8IUS2 (Q8IUS2) LOC339483 protein	3.48E-03	2870.257	Q8IUS2	1	1	1
284	I	Q8IXT9 (Q8IXT9) RUN domain containing 1	5.03E-03	67603.02	Q8IXT9	1	1	1
285	L	Q8IZA4 (Q8IZA4) ELYS transcription factor-like protein T?	5.66E-03	256022.6	Q8IZA4	1	1	1
286	L	ASPM_HUMAN (Q8IZT6) Abnormal spindle-like microcep?	4.72E-03	409539.8	Q8IZT6	1	1	1
287	G	Q8N1G4 (Q8N1G4) Hypothetical protein LRRC47 (Novel p?	2.19E-03	63433.89	Q8N1G4	1	1	1
288	H	Q8N401 (Q8N401) KIAA1632 protein	8.67E-03	52340.19	Q8N401	1	1	1
289	L	DCAK2_HUMAN (Q8N568) Serine/threonine-protein kinas?	4.26E-03	83587.57	Q8N568	1	1	1

TABLE 6-continued

Proteins identified in 25 runs (5 patients with diagnosed Macular Hole)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Counts	Tot IDS 25 runs
290	L	Q8N5E0 (Q8N5E0) Apoptosis-inducing factor like, isoform	5.12E−03	65924.3	Q8N5E0	1	1	1
291	I	Q8N780 (Q8N780) Hypothetical protein FLJ25943	1.83E−03	33347.2	Q8N780	1	1	1
292	H	Q8N8Z1 (Q8N8Z1) Hypothetical protein FLJ38687	9.20E−03	16623.52	Q8N8Z1	1	1	1
293	F	Q8NC99 (Q8NC99) Hypothetical protein FLJ90396	5.35E−03	66758.55	Q8NC99	1	1	1
294	H	Q8NF06 (Q8NF06) FLJ00398 protein (Fragment)	1.78E−04	72000.41	Q8NF06	1	1	1
295	G	Q8NFY8 (Q8NFY8) Neuroblastoma-amplified protein	1.13E−03	268295.4	Q8NFY8	1	1	1
296	L	O10A7_HUMAN (Q8NGE5) Olfactory receptor 10A7	8.56E−03	35670.34	Q8NGE5	1	1	1
297	F	Q8NH29 (Q8NH29) Seven transmembrane helix receptor	1.70E−04	25373.85	Q8NH29	1	1	1
298	G	IL17D_HUMAN (Q8TAD2) Interleukin-17D precursor (IL-1?	6.37E−03	21879.14	Q8TAD2	1	1	1
299	H	Q8TBE7 (Q8TBE7) TMEM22 protein	7.86E−03	46419.88	Q8TBE7	1	1	1
300	F	Q8TCE1 (Q8TCE1) SERPINC1 protein	2.30E−05	29073.79	Q8TCE1	1	1	1
301	F	Q8TCJ2 (Q8TCJ2) Source of immunodominant MHC-asso?	3.14E−04	93613.76	Q8TCJ2	1	1	1
302	F	DDX54_HUMAN (Q8TDD1) DEAD-box protein 54 (EC 3.6.?	1.74E−03	98534.24	Q8TDD1	1	1	1
303	F	K1199_HUMAN (Q8WUJ3) Protein KIAA1199 precursor	9.51E−03	152900	Q8WUJ3	1	1	1
304	F	GCN1L_HUMAN (Q92616) GCN1-like protein 1 (HsGCN1)?	7.47E−03	292424.8	Q92616	1	1	1
305	G	Q92772 (Q92772) P56 KKIAMRE protein kinase (Cyclin-d?	6.77E−03	55982.93	Q92772	1	1	1
306	L	COR2A_HUMAN (Q92828) Coronin-2A (WD repeat-contai?	3.04E−03	59725.43	Q92828	1	1	1
307	G	Q969T7 (Q969T7) Hypothetical protein MGC20781	6.70E−03	33551.02	Q969T7	1	1	1
308	G	DGC14_HUMAN (Q96DF8) DGCR14 protein (DiGeorge s?	7.51E−03	52535.89	Q96DF8	1	1	1
309	G	Q96E20 (Q96E20) CD99L2 protein (Hypothetical protein) (?	3.63E−03	16612.17	Q96E20	1	1	1
310	L	Q96IV6 (Q96IV6) C5orf4 protein	4.48E−03	38976.07	Q96IV6	1	1	1
311	L	RSRC1_HUMAN (Q96IZ7) Arginine/serine-rich coiled coil?	8.17E−03	38654.46	Q96IZ7	1	1	1
312	G	KCNH8_HUMAN (Q96L42) Potassium voltage-gated chan?	3.90E−04	123754.3	Q96L42	1	1	1
313	H	Q96LU7 (Q96LU7) Hypothetical protein FLJ25056	7.45E−03	31208.16	Q96LU7	1	1	1
314	F	Q96MP4 (Q96MP4) Hypothetical protein FLJ32091	6.67E−03	81413.94	Q96MP4	1	1	1
315	H	Q96NI8 (Q96NI8) Hypothetical protein FLJ30791	4.72E−03	62289.69	Q96NI8	1	1	1
316	H	ZN285_HUMAN (Q96NJ3) Zinc finger protein 285	2.66E−03	50009.57	Q96NJ3	1	1	1
317	G	IPO9_HUMAN (Q96P70) Importin-9 (Imp9) (Ran-binding p?	9.18E−03	115757.8	Q96P70	1	1	1
318	H	INP4A_HUMAN (Q96PE3) Type I inositol-3,4-bisphosphat?	2.98E−04	109885.5	Q96PE3	1	1	1
319	G	UHRF2_HUMAN (Q96PU4) Ubiquitin-like containing PHD ?	6.47E−03	89927.86	Q96PU4	1	1	1
320	G	Q96QE0 (Q96QE0) Hypothetical protein DL8Q12	3.39E−03	23959.2	Q96QE0	1	1	1
321	H	PANX2_HUMAN (Q96RD6) Pannexin-2	7.29E−03	69434.98	Q96RD6	1	1	1
322	G	Q96RF2 (Q96RF2) WWOXdelta5-8	3.55E−03	35019.5	Q96RF2	1	1	1
323	L	LYST_HUMAN (Q99698) Lysosomal trafficking regulator (?	7.47E−03	428865.6	Q99698	1	1	1
324	H	SMO_HUMAN (Q99835) Smoothened homolog precursor	7.04E−05	86341.18	Q99835	1	1	1
325	L	Q99993 (Q99993) WUGSC:H_2G3A.1 protein	4.36E−03	60051.64	Q99993	1	1	1
326	L	OSR10_HUMAN (Q9BXB5) Oxysterol binding protein-relat?	7.10E−03	83917.38	Q9BXB5	1	1	1
327	H	EMR3_HUMAN (Q9BY15) EGF-like module containing mu?	6.97E−03	72545.69	Q9BY15	1	1	1
328	F	Q9BYJ0 (Q9BYJ0) Ksp37 (HBp17-related protein)	6.42E−04	24565.15	Q9BYJ0	1	1	1
329	G	OSR7_HUMAN (Q9BZF2) Oxysterol binding protein-relate?	3.33E−04	95371.7	Q9BZF2	1	1	1
330	L	Q9BZH2 (Q9BZH2) False p73 target protein	2.66E−03	53043.29	Q9BZH2	1	1	1
331	I	PHAR1_HUMAN (Q9C0D0) Phosphatase and actin regula?	2.72E−04	54573.55	Q9C0D0	1	1	1
332	G	Q9C0D4 (Q9C0D4) KIAA1729 protein (Fragment)	1.84E−03	113646.6	Q9C0D4	1	1	1
333	L	DDX24_HUMAN (Q9GZR7) ATP-dependent RNA helicase	7.26E−03	96271.52	Q9GZR7	1	1	1
334	L	Q9GZT6 (Q9GZT6) MDS011 (Hypothetical protein MDS02	4.53E−03	29453.17	Q9GZT6	1	1	1
335	H	Q9H0J7 (Q9H0J7) Hypothetical protein DKFZp434F0116	2.81E−04	53323.07	Q9H0J7	1	1	1
336	L	GHITM_HUMAN (Q9H3K2) Growth hormone inducible trar?	4.28E−03	37180.59	Q9H3K2	1	1	1
337	H	Q9H3M9 (Q9H3M9) *Homo sapiens* (Fragment)	5.36E−03	39581.41	Q9H3M9	1	1	1
338	F	Q9H6E6 (Q9H6E6) Hypothetical protein FLJ22346	1.41E−03	81825.66	Q9H6E6	1	1	1
339	H	RANB3_HUMAN (Q9H6Z4) Ran-binding protein 3 (RanBP?	3.82E−03	60173.32	Q9H6Z4	1	1	1
340	H	SMYD3_HUMAN (Q9H7B4) SET and MYND domain-cont?	5.56E−03	49050.59	Q9H7B4	1	1	1
341	L	Q9H7C4 (Q9H7C4) Hypothetical protein FLJ21054	8.68E−03	17715.02	Q9H7C4	1	1	1
342	G	SYP2L_HUMAN (Q9H987) Synaptopodin 2-like protein	8.46E−03	102406.1	Q9H987	1	1	1
343	L	COG4_HUMAN (Q9H9E3) Conserved oligomeric Golgi co?	9.55E−03	89038.48	Q9H9E3	1	1	1
344	G	UBP29_HUMAN (Q9HBJ7) Ubiquitin carboxyl-terminal hyd?	1.22E−03	104090.1	Q9HBJ7	1	1	1
345	H	Q9HBY0 (Q9HBY0) Putative superoxide-generating NADP?	4.96E−03	64893.13	Q9HBY0	1	1	1
346	F	SYTL2_HUMAN (Q9HCH5) Synaptotagmin-like protein 2 (?	8.61E−04	100734.4	Q9HCH5	1	1	1
347	F	Q9NR16 (Q9NR16) Scavenger receptor cysteine-rich type	6.17E−03	159159.5	Q9NR16	1	1	1
348	L	SPTN5_HUMAN (Q9NRC6) Spectrin beta chain, brain 4 (?	3.96E−04	416577.2	Q9NRC6	1	1	1
349	L	DC13_HUMAN (Q9NRP2) UPF0287 protein DC13	2.81E−03	9453.72	Q9NRP2	1	1	1
350	F	Q9NS87 (Q9NS87) Kinesin-like protein 2	4.45E−03	160060.4	Q9NS87	1	1	1
351	G	Q9NSN6 (Q9NSN6) Hypothetical protein DKFZp761O011?	6.56E−03	39970.1	Q9NSN6	1	1	1
352	H	EMIL3_HUMAN (Q9NT22) EMILIN-3 precursor (EMILIN-5)?	3.69E−03	82595.73	Q9NT22	1	1	1
353	H	UGGG1_HUMAN (Q9NYU2) UDP-glucose:glycoprotein gl?	3.83E−03	174866.5	Q9NYU2	1	1	1
354	H	T2R14_HUMAN (Q9NYV8) Taste receptor type 2 member	1.33E−03	36136.48	Q9NYV8	1	1	1
355	F	COMD9_HUMAN (Q9P000) COMM domain containing pro?	4.29E−04	21904.53	Q9P000	1	1	1
356	L	VPS18_HUMAN (Q9P253) Vacuolar protein sorting 18 (hV?	7.01E−03	110115.9	Q9P253	1	1	1
357	I	RRBP1_HUMAN (Q9P2E9) Ribosome-binding protein 1 (?	4.24E−03	152380	Q9P2E9	1	1	1

TABLE 6-continued

Proteins identified in 25 runs (5 patients with diagnosed Macular Hole)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Counts	Tot IDS 25 runs
358	G	SUCB1_HUMAN (Q9P2R7) Succinyl-CoA ligase [ADP-forr?	8.47E-03	50299.33	Q9P2R7	1	1	1
359	L	OPT_HUMAN (Q9UBM4) Opticin precursor (Oculoglycan)	1.45E-03	37237.39	Q9UBM4	1	1	1
360	I	GT2D1_HUMAN (Q9UHL9) General transcription factor II-?	4.56E-03	105990.8	Q9UHL9	1	1	1
361	G	Q9UI74 (Q9UI74) PRO0245	7.12E-04	8075.004	Q9UI74	1	1	1
362	L	SPB13_HUMAN (Q9UIV8) Serpin B13 (Hurpin) (HaCaT U?	8.72E-04	44248.2	Q9UIV8	1	1	1
363	I	HOOK1_HUMAN (Q9UJC3) Hook homolog 1 (h-hook1) (h?	9.77E-03	84594.84	Q9UJC3	1	1	1
364	F	DKKL1_HUMAN (Q9UK85) Dickkopf-like protein 1 precurs?	1.36E-04	26990.23	Q9UK85	1	1	1
365	H	Q9ULI2 (Q9ULI2) KIAA1238 protein (Fragment)	2.40E-03	45141.04	Q9ULI2	1	1	1
366	L	PADI3_HUMAN (Q9ULW8) Protein-arginine deiminase typ?	9.91E-04	74695.37	Q9ULW8	1	1	1
367	H	MLL4_HUMAN (Q9UMN6) Myeloid/lymphoid or mixed-line?	9.43E-03	293327.3	Q9UMN6	1	1	1
368	I	PCDA7_HUMAN (Q9UN72) Protocadherin alpha 7 precurs?	3.78E-03	100802.9	Q9UN72	1	1	1
369	F	RHG26_HUMAN (Q9UNA1) Rho-GTPase-activating protei?	4.55E-03	92176.67	Q9UNA1	1	1	1
370	H	TF2AY_HUMAN (Q9UNN4) TFIIA-alpha and beta-like fact?	4.50E-03	52412.98	Q9UNN4	1	1	1
371	H	GPR34_HUMAN (Q9UPC5) Probable G-protein coupled re?	8.71E-03	43831.09	Q9UPC5	1	1	1
372	G	Q9UQ10 (Q9UQ10) Dimeric dihydrodiol dehydrogenase (E?	9.73E-03	36358.77	Q9UQ10	1	1	1
373	I	SHOC2_HUMAN (Q9UQ13) Leucine-rich repeat protein S?	3.26E-03	64847.64	Q9UQ13	1	1	1
374	F	ADIP_HUMAN (Q9Y2D8) Afadin- and alpha-actinin-binding?	2.87E-03	71191.48	Q9Y2D8	1	1	1
375	G	AT11B_HUMAN (Q9Y2G3) Probable phospholipid-transpo?	9.84E-03	134104.1	Q9Y2G3	1	1	1
376	F	PCDG7_HUMAN (Q9Y5G6) Protocadherin gamma A7 pre?	2.96E-03	101659.2	Q9Y5G6	1	1	1
377	L	PCDA2_HUMAN (Q9Y5H9) Protocadherin alpha 2 precurs?	6.26E-03	102000.4	Q9Y5H9	1	1	1
378	G	Q9Y5S5 (Q9Y5S5) DNA polymerase epsilon catalytic subu?	9.10E-03	262846.1	Q9Y5S5	1	1	1
379	F	SO1B1_HUMAN (Q9Y6L6) Solute carrier organic anion tra?	1.51E-03	76398.98	Q9Y6L6	1	1	1

? indicates text missing or illegible when filed

[0064]

TABLE 7

Proteins identified uniquely in Retinal Detachment diagnosed patients (5 patients, 25 runs)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Patients	Reference	P (pro)	MW	Accession	(Hits)	RD Counts	TOT ID (25)
1	CBDE	LOC131076 protein	2.50E-03	16609.49	Q4VC31	1	4	5
2	EBC	Keratin, type II	5.27E-07	54935.82	Q14533	1	3	5
3	CEA	Histone acetyltransferase	6.68E-04	92953.77	Q92831	1	3	4
4	AB	Cathepsin D precursor	3.66E-09	44523.66	P07339	1	2	4
5	BD	Peroxiredoxin 1	1.57E-06	22096.28	Q06830	1	2	4
6	ECD	Nuclear pore complex protein Nup214	4.38E-03	213632.8	P35658	1	3	3
7	DEA	T-cell activation Rho GTPase-activating protein	5.60E-03	80652.9	Q8N103	1	3	3
8	EDC	Protein C9orf126	1.82E-03	70385.07	Q8N9R8	1	3	3
9	BE	Receptor interacting protein kinase 5	2.01E-03	99957.35	Q5RKT0	1	2	3
10	BD	Novel protein	2.74E-04	91277.53	Q5VVM6	1	2	3
11	E	Potassium voltage-gated channel subfamily A	8.04E-04	56505.6	Q09470	1	1	3
12	D	Huntingtin interacting protein E	7.33E-05	51745.16	Q9BVA6	1	1	3
13	BE	KIAA0068 protein (Fragment)	2.65E-04	147040.6	Q14467	2	2	2
14	CE	Hypothetical protein FLJ21129	2.87E-03	63276.44	Q9H796	2	2	2
15	CE	HS1-associating protein X-1	2.63E-03	31601.06	O00165	1	2	2
16	EA	Inositol polyphosphate 5-phosphatase	1.69E-04	138498.9	O15357	1	2	2
17	DE	DNA repair protein RAD51 homolog 3	3.18E-03	42162.89	O43502	1	2	2
18	CA	Ig lambda chain V region	4.35E-03	12372.02	P04211	1	2	2
19	BE	Keratin, type II	4.19E-05	59831.25	P04259	1	2	2
20	CA	Cation-independent mannose-6-phosphate receptor	5.66E-03	274097.6	P11717	1	2	2
21	CE	Macrophage scavenger receptor types I and II	7.76E-04	49730.82	P21757	1	2	2
22	CD	Matrin-3	3.80E-03	94564.67	P43243	1	2	2
23	CE	Voltage-dependent anion-selective channel protein 2	4.14E-04	38068.68	P45880	1	2	2
24	BE	FLJ00268 protein (Fragment)	2.78E-03	72805.3	Q6ZML5	1	2	2
25	CA	LAG1 longevity assurance homolog 2	1.46E-04	44847.38	Q96G23	1	2	2
26	CA	Serine/threonine-protein kinase	8.12E-03	134655.6	Q96J92	1	2	2
27	CD	Hypothetical protein FLJ13940	2.89E-03	27528.79	Q9H853	1	2	2
28	B	Adenylate kinase isoenzyme 2	1.02E-03	26329.73	P54819	2	1	2
29	C	DAX1_HUMAN (P51843) Nuclear receptor 0B1 (Nuclear r?	1.40E-03	51683.89	P51843	1	1	2
30	D	ZN473_HUMAN (Q8WTR7) Zinc finger protein 473 (Zinc f?	2.47E-03	100118.1	Q8WTR7	1	1	2
31	B	CPSF3_HUMAN (Q9UKF6) Cleavage and polyadenylation?	1.14E-03	77436.22	Q9UKF6	1	1	2

TABLE 7-continued

Proteins identified uniquely in Retinal Detachment diagnosed patients (5 patients, 25 runs)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

32	B	K2C5_HUMAN (P13647) Keratin, type II cytoskeletal 5 (Cy	7.34E-08	62409.08	P13647	3	1	1
33	B	CAH1_HUMAN (P00915) Carbonic anhydrase 1 (EC 4.2.1	8.52E-08	28721.34	P00915	2	1	1
34	A	KNG1_HUMAN (P01042) Kininogen-1 precursor (Alpha-2-	2.12E-10	71900.1	P01042	2	1	1
35	B	K1C14_HUMAN (P02533) Keratin, type I cytoskeletal 14 (	3.33E-06	51458.45	P02533	2	1	1
36	D	O00211 (O00211) HSLK (Ste20-related serineVthreonine	8.39E-03	138909.7	O00211	1	1	1
37	D	P3C2A_HUMAN (O00443) Phosphatidylinositol-4-phosph	7.07E-03	190616.2	O00443	1	1	1
38	B	SYT5_HUMAN (O00445) Synaptotagmin-5 (Synaptotagmi	3.71E-03	42873.54	O00445	1	1	1
39	A	CHD2_HUMAN (O14647) Chromodomain-helicase-DNA-b	7.04E-03	200437.6	O14647	1	1	1
40	C	MLL2_HUMAN (O14686) Myeloid/lymphoid or mixed-linea	8.21E-04	563835.8	O14686	1	1	1
41	E	O15042 (O15042) Hypothetical protein KIAA0332 (U2-ass	7.16E-04	118087.4	O15042	1	1	1
42	B	SNPH_HUMAN (O15079) Syntaphilin	7.58E-03	57953.73	O15079	1	1	1
43	A	WDR46_HUMAN (O15213) WD-repeat protein 46 (WD-re	3.67E-03	67998.89	O15213	1	1	1
44	E	HAPIP_HUMAN (O60229) Huntingtin-associated protein-i	3.37E-03	192107.9	O60229	1	1	1
45	E	O60687 (O60687) Sushi-repeat-containing protein, X-linke	4.07E-03	52937.79	O60687	1	1	1
46	D	ZC11A_HUMAN (O75152) Zinc finger CCCH-type domain	4.33E-03	89076.06	O75152	1	1	1
47	C	O75198 (O75198) CDC37-like gene	1.49E-03	26530.93	O75198	1	1	1
48	A	AVIL_HUMAN (O75366) Advillin (p92)	8.01E-03	92028.35	O75366	1	1	1
49	C	MYCB2_HUMAN (O75592) Probable ubiquitin ligase prote	7.36E-03	509842.3	O75592	1	1	1
50	A	CMC1_HUMAN (O75746) Calcium-binding mitochondrial	3.32E-03	74709.01	O75746	1	1	1
51	E	MFN2_HUMAN (O95140) Transmembrane GTPase MFN2	4.18E-03	86346.95	O95140	1	1	1
52	B	G6PE_HUMAN (O95479) GDH/6PGL endoplasmic bifunct	3.69E-03	88822.63	O95479	1	1	1
53	D	HPTR_HUMAN (P00739) Haptoglobin-related protein prec	5.05E-03	38982.66	P00739	1	1	1
54	A	CFAB_HUMAN (P00751) Complement factor B precursor	2.24E-04	85478.58	P00751	1	1	1
55	A	ASSY_HUMAN (P00966) Argininosuccinate synthase (EC	4.02E-03	46501.01	P00966	1	1	1
56	B	HRG_HUMAN (P04196) Histidine-rich glycoprotein precur	5.94E-04	59540.94	P04196	1	1	1
57	A	CFAI_HUMAN (P05156) Complement factor I precursor (E	2.93E-05	65676.66	P05156	1	1	1
58	D	ITB1_HUMAN (P05556) Integrin beta-1 precursor (Fibrone	7.50E-05	88406.98	P05556	1	1	1
59	A	KV2F_HUMAN (P06310) Ig kappa chain V-II region RPMI	1.78E-06	14697.37	P06310	1	1	1
60	B	K1C16_HUMAN (P08779) Keratin, type I cytoskeletal 16 (	1.08E-06	51105.21	P08779	1	1	1
61	E	TAU_HUMAN (P10636) Microtubule-associated protein ta	7.47E-04	78698.83	P10636	1	1	1
62	D	PABP1_HUMAN (P11940) Polyadenylate-binding protein 1	9.99E-03	70626.04	P11940	1	1	1
63	B	SCG2_HUMAN (P13521) Secretogranin-2 precursor (Secr	6.93E-03	70825.11	P13521	1	1	1
64	C	UCHL3_HUMAN (P15374) Ubiquitin carboxyl-terminal hyd	6.36E-03	26165.98	P15374	1	1	1
65	B	CBPE_HUMAN (P16870) Carboxypeptidase E precursor (	1.65E-06	53117.17	P16870	1	1	1
66	B	AATC_HUMAN (P17174) Aspartate aminotransferase, cyt	9.28E-03	46087.54	P17174	1	1	1
67	B	A1ATR_HUMAN (P20848) Alpha-1-antitrypsin-related prot	7.19E-03	47860.97	P20848	1	1	1
68	E	RAE2_HUMAN (P26374) Rab proteins geranylgeranyltran	1.83E-03	74024.21	P26374	1	1	1
69	B	VGFR2_HUMAN (P35968) Vascular endothelial growth fa	1.56E-03	151430.5	P35968	1	1	1
70	B	CH3L1_HUMAN (P36222) Chitinase-3-like protein 1 precu	2.71E-06	42586.39	P36222	1	1	1
71	B	MAP1B_HUMAN (P46821) Microtubule-associated protein	5.22E-03	270451.8	P46821	1	1	1
72	B	PCY1A_HUMAN (P49585) Choline-phosphate cytidylyltra	3.65E-03	41705.8	P49585	1	1	1
73	E	CEBPD_HUMAN (P49716) CCAAT/enhancer binding prot	6.61E-03	28461.45	P49716	1	1	1
74	D	CCR6_HUMAN (P51684) C—C chemokine receptor type 6	7.26E-03	42465.93	P51684	1	1	1
75	C	EPHA5_HUMAN (P54756) Ephrin type-A receptor 5 precu	7.74E-03	114710.3	P54756	1	1	1
76	A	PSD4_HUMAN (P55036) 26S proteasome non-ATPase re	6.62E-04	40711.21	P55036	1	1	1
77	B	B2MG_HUMAN (P61769) Beta-2-microglobulin precursor [	3.51E-07	13705.91	P61769	1	1	1
78	A	GBB1_HUMAN (P62873) Guanine nucleotide-binding prot	1.27E-03	37221.98	P62873	1	1	1
79	D	CXAR_HUMAN (P78310) Coxsackievirus and adenovirus	1.03E-03	40004.39	P78310	1	1	1
80	A	GALT1_HUMAN (Q10472) Polypeptide N-acetylgalactosar	3.87E-03	64177.48	Q10472	1	1	1
81	B	PTN13_HUMAN (Q12923) Tyrosine-protein phosphatase,	3.13E-05	276731.3	Q12923	1	1	1
82	C	DLG1_HUMAN (Q12959) Presynaptic protein SAP97 (Syn	6.56E-03	100293.1	Q12959	1	1	1
83	A	AKAP6_HUMAN (Q13023) A-kinase anchor protein 6 (Pro	1.63E-03	256503.6	Q13023	1	1	1
84	A	ATM_HUMAN (Q13315) Serine-protein kinase ATM (EC 2.	4.51E-03	350417.1	Q13315	1	1	1
85	B	ROCK1_HUMAN (Q13464) Rho-associated protein kinase	1.42E-03	158074.9	Q13464	1	1	1
86	A	ENPP2_HUMAN (Q13822) Ectonucleotide pyrophosphata	5.80E-10	98939.61	Q13822	1	1	1
87	D	SMC1A_HUMAN (Q14683) Structural maintenance of chr	9.76E-04	143143.6	Q14683	1	1	1
88	C	NOLC1_HUMAN (Q14978) Nucleolar phosphoprotein p13	1.80E-03	73676.72	Q14978	1	1	1
89	A	PLEC1_HUMAN (Q15149) Plectin 1 (PLTN) (PCN) (Hemi	2.61E-04	531411.9	Q15149	1	1	1
90	E	K1H1_HUMAN (Q15323) Keratin, type I cuticular Ha1 (Hai	1.36E-03	47202.1	Q15323	1	1	1
91	A	NCOA1_HUMAN (Q15788) Nuclear receptor coactivator 1	4.14E-04	156641.7	Q15788	1	1	1
92	A	Q15813 (Q15813) Beta-tubulin cofactor E (Tubulin-specific	5.90E-03	59309.08	Q15813	1	1	1
93	A	SCN9A_HUMAN (Q15858) Sodium channel protein type I	6.73E-03	226193.9	Q15858	1	1	1
94	B	Q495C9 (Q495C9) Hypothetical protein LOC149134	6.59E-03	13623.18	Q495C9	1	1	1
95	A	Q4G0M1 (Q4G0M1) FLJ37034 protein (Fragment)	6.80E-03	14453.34	Q4G0M1	1	1	1
96	D	Q567P4 (Q567P4) Hypothetical protein (Fragment)	2.58E-03	34603.27	Q567P4	1	1	1
97	A	LRC10_HUMAN (Q5BKY1) Leucine-rich repeat-containing	9.03E-04	31621.81	Q5BKY1	1	1	1
98	B	Q5H9K7 (Q5H9K7) Novel protein (Fragment)	6.32E-03	38685.59	Q5H9K7	1	1	1
99	D	Q5H9K8 (Q5H9K8) Armadillo repeat containing, X-linked 4	7.72E-03	36484.3	Q5H9K8	1	1	1
100	C	Q5JRL1 (Q5JRL1) Novel protein	6.73E-03	30747.36	Q5JRL1	1	1	1
101	E	Q5T364 (Q5T364) OTTHUMP00000022702	4.05E-03	101941	Q5T364	1	1	1
102	C	Q5T3B9 (Q5T3B9) Novel protein	4.46E-03	45993.33	Q5T3B9	1	1	1
103	D	Q5TBP2 (Q5TBP2) Retinoblastoma-associated factor 600	4.66E-03	106303.1	Q5TBP2	1	1	1
104	B	Q5VWL1 (Q5VWL1) Membrane-associated guanylate kina	7.51E-03	162847.8	Q5VWL1	1	1	1

TABLE 7-continued

Proteins identified uniquely in Retinal Detachment diagnosed patients (5 patients, 25 runs)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

105	C	Q5XLJ0 (Q5XLJ0) AIDA1C transcript variant 4	9.99E-03	48400.84	Q5XLJ0	1	1	1
106	E	Q6DN23 (Q6DN23) Platelet phospholipase A2	4.11E-03	16135.78	Q6DN23	1	1	1
107	C	Q6IAM5 (Q6IAM5) SLC27A6 protein	3.12E-03	70042.55	Q6IAM5	1	1	1
108	B	Q6JIC5 (Q6JIC5) Cementum attachment protein	9.87E-03	14910.42	Q6JIC5	1	1	1
109	A	Q6MZX7 (Q6MZX7) Hypothetical protein DKFZp686M242?	1.00E-30	52387.13	Q6MZX7	1	1	1
110	D	Q6P2C5 (Q6P2C5) PHF2 protein	5.50E-03	35720.63	Q6P2C5	1	1	1
111	E	Q6P528 (Q6P528) ASPN protein	8.71E-03	43863.48	Q6P528	1	1	1
112	E	POTE2_HUMAN (Q6S8J3) Prostate, ovary, testis express?	6.93E-03	80701.5	Q6S8J3	1	1	1
113	E	Q6UXZ8 (Q6UXZ8) FVSY9334	7.07E-04	24230.68	Q6UXZ8	1	1	1
114	A	Q6ZN08 (Q6ZN08) Hypothetical protein FLJ16537	4.37E-04	38813.18	Q6ZN08	1	1	1
115	D	Q6ZR14 (Q6ZR14) Hypothetical protein FLJ46736	8.79E-03	126662.9	Q6ZR14	1	1	1
116	E	Q6ZSK5 (Q6ZSK5) Hypothetical protein FLJ45433	6.04E-03	15222.69	Q6ZSK5	1	1	1
117	B	Q6ZSY5 (Q6ZSY5) Hypothetical protein FLJ45123	7.90E-03	42154.05	Q6ZSY5	1	1	1
118	A	Q6ZVQ3 (Q6ZVQ3) Hypothetical protein FLJ42220	1.14E-03	17595.21	Q6ZVQ3	1	1	1
119	D	Q6ZW49 (Q6ZW49) Hypothetical protein FLJ41606	3.89E-03	117615.6	Q6ZW49	1	1	1
120	C	Q70AK8 (Q70AK8) Ankyrin-repeat-ARM domain protein (F?	8.67E-04	40496.33	Q70AK8	1	1	1
121	A	Q70CQ2 (Q70CQ2) Ubiquitin-specific proteinase 34	9.41E-03	386873.7	Q70CQ2	1	1	1
122	C	Q76E79 (Q76E79) Mitochondrial methionyl-tRNA syntheta?	2.95E-03	66584.84	Q76E79	1	1	1
123	C	Q7L7Q2 (Q7L7Q2) BLOM7 beta (Novel protein)	1.49E-04	59101.39	Q7L7Q2	1	1	1
124	D	Q7Z3P5 (Q7Z3P5) Hypothetical protein DKFZp686P13218?	5.90E-04	30940.46	Q7Z3P5	1	1	1
125	A	NPHP3_HUMAN (Q7Z494) Nephrocystin-3	5.74E-03	150768.9	Q7Z494	1	1	1
126	E	Q86VG6 (Q86VG6) Hypothetical protein	3.43E-03	11523.95	Q86VG6	1	1	1
127	C	TXND2_HUMAN (Q86VQ3) Thioredoxin domain-containin?	7.89E-04	60424.09	Q86VQ3	1	1	1
128	D	NAL14_HUMAN (Q86W24) NACHT-, LRR- and PYD-cont?	1.88E-03	124651.5	Q86W24	1	1	1
129	E	Q86WW8 (Q86WW8) Hypothetical protein MGC52110 (H?	4.59E-03	8370.071	Q86WW8	1	1	1
130	D	Q86Y92 (Q86Y92) Similar to KIAA0922 protein (Fragment)?	2.24E-03	154618.6	Q86Y92	1	1	1
131	D	Q8IV73 (Q8IV73) Guanine nucleotide-releasing factor 2, is?	3.40E-03	122658.6	Q8IV73	1	1	1
132	B	Q8IVL1 (Q8IVL1) Steerin2 protein	2.98E-03	267950.3	Q8IVL1	1	1	1
133	B	Q8IVM4 (Q8IVM4) Hypothetical protein	8.10E-03	6014.06	Q8IVM4	1	1	1
134	A	FA20C_HUMAN (Q8IXL6) Protein FAM20C precursor	5.31E-03	64405.57	Q8IXL6	1	1	1
135	E	Q8IY66 (Q8IY66) DNA ligase IV (Ligase IV, DNA, ATP-de?	7.76E-03	103904	Q8IY66	1	1	1
136	D	GP115_HUMAN (Q8IZF3) Probable G-protein coupled rec?	5.14E-04	83775.66	Q8IZF3	1	1	1
137	B	Q8IZQ1 (Q8IZQ1) ALFY	6.15E-03	394992	Q8IZQ1	1	1	1
138	D	AHI1_HUMAN (Q8N157) Jouberin (Abelson helper integra?	2.76E-03	137029	Q8N157	1	1	1
139	C	Q8N1K5 (Q8N1K5) Hypothetical protein FLJ40584	5.82E-03	73625.31	Q8N1K5	1	1	1
140	D	Q8N3I3 (Q8N3I3) Hypothetical protein DKFZp761P18121	3.18E-03	81550.7	Q8N3I3	1	1	1
141	A	Q8N543 (Q8N543) Hypothetical protein FLJ10826	1.90E-03	63206.21	Q8N543	1	1	1
142	A	Q8N998 (Q8N998) Hypothetical protein FLJ38159	7.01E-03	43781.59	Q8N998	1	1	1
143	D	Q8N9S2 (Q8N9S2) Hypothetical protein FLJ36635	5.25E-03	28973.04	Q8N9S2	1	1	1
144	E	Q8NAJ6 (Q8NAJ6) Hypothetical protein FLJ35251	1.24E-03	81745.5	Q8NAJ6	1	1	1
145	A	Q8NCU4 (Q8NCU4) Hypothetical protein	9.83E-03	110499	Q8NCU4	1	1	1
146	E	Q8NDA2 (Q8NDA2) Hypothetical protein DKFZp434P0216?	7.52E-04	143799.3	Q8NDA2	1	1	1
147	A	Q8TAN9 (Q8TAN9) Oxoglutarate dehydrogenase-like	6.91E-03	114423.7	Q8TAN9	1	1	1
148	E	Q8TBB5 (Q8TBB5) Kelch domain containing 4	1.01E-03	57855.43	Q8TBB5	1	1	1
149	A	Q8TBZ0 (Q8TBZ0) Hypothetical protein KM-HN-1	6.67E-04	96664.98	Q8TBZ0	1	1	1
150	B	Q8TC05 (Q8TC05) Mdm4, transformed 3T3 cell double mi?	5.19E-03	80695.09	Q8TC05	1	1	1
151	B	CHD6_HUMAN (Q8TD26) Chromodomain-helicase-DNA-?	6.52E-03	305218.9	Q8TD26	1	1	1
152	B	PAR3L_HUMAN (Q8TEW8) Amyotrophic lateral sclerosis?	9.52E-03	132412.5	Q8TEW8	1	1	1
153	E	Q8WVY7 (Q8WVY7) Ubiquitin-like domain containing CT?	8.32E-04	36781.22	Q8WVY7	1	1	1
154	A	ANKR7_HUMAN (Q92527) Ankyrin repeat domain protein	8.25E-03	22573.66	Q92527	1	1	1
155	E	Q92735 (Q92735) FMI protein	4.05E-03	161492.6	Q92735	1	1	1
156	C	SNPC3_HUMAN (Q92966) snRNA-activating protein comp?	9.07E-03	46722.65	Q92966	1	1	1
157	A	IRF7_HUMAN (Q92985) Interferon regulatory factor 7 (IRF?	7.33E-04	54244.25	Q92985	1	1	1
158	D	Q96AG4 (Q96AG4) Hypothetical protein PRO1855	9.06E-03	34908.9	Q96AG4	1	1	1
159	A	ISG20_HUMAN (Q96AZ6) Interferon-stimulated gene 20 k?	9.06E-05	20350.62	Q96AZ6	1	1	1
160	C	GMCL1_HUMAN (Q96IK5) Germ cell-less protein-like 1	7.74E-03	58647.47	Q96IK5	1	1	1
161	A	KAD7_HUMAN (Q96M32) Putative adenylate kinase 7 (EC?	9.64E-03	82620.65	Q96M32	1	1	1
162	A	DB118_HUMAN (Q96PH6) Beta-defensin 118 precursor (?	5.68E-03	13604.79	Q96PH6	1	1	1
163	D	VPS35_HUMAN (Q96QK1) Vacuolar protein sorting 35 (V?	4.26E-03	91649.07	Q96QK1	1	1	1
164	E	MAGI1_HUMAN (Q96QZ7) Membrane associated guanyla?	7.80E-03	164540.2	Q96QZ7	1	1	1
165	D	MCCA_HUMAN (Q96RQ3) Methylcrotonoyl-CoA carboxyla?	3.52E-03	80382.04	Q96RQ3	1	1	1
166	E	NIBL_HUMAN (Q96TA1) Niban-like protein (Meg-3)	6.21E-03	82631.11	Q96TA1	1	1	1
167	C	SPS2_HUMAN (Q99611) Selenide, water dikinase 2 (EC 2?	2.61E-03	47227.85	Q99611	1	1	1
168	D	KIF2C_HUMAN (Q99661) Kinesin-like protein KIF2C (Mito?	5.02E-03	81261.21	Q99661	1	1	1
169	E	CLP24_HUMAN (Q9BSN7) Claudin-like protein 24	2.48E-03	24523.55	Q9BSN7	1	1	1
170	E	DATF1_HUMAN (Q9BTC0) Death-associated transcription ?	7.61E-03	129070.5	Q9BTC0	1	1	1
171	E	CHST6_HUMAN (Q9GZX3) Carbohydrate sulfotransferase?	5.32E-03	44071.2	Q9GZX3	1	1	1
172	C	TNKS2_HUMAN (Q9H2K2) Tankyrase 2 (EC 2.4.2.30) (TA?	1.90E-05	126838.5	Q9H2K2	1	1	1
173	C	Q9H2M8 (Q9H2M8) DC28	8.59E-03	64005.01	Q9H2M8	1	1	1
174	E	SMRCD_HUMAN (Q9H4L7) SWI/SNF-related, matrix ass?	7.44E-03	117299.9	Q9H4L7	1	1	1
175	C	Q9H9B0 (Q9H9B0) Hypothetical protein FLJ12883	9.96E-03	91169.25	Q9H9B0	1	1	1
176	A	Q9H9B6 (Q9H9B6) Hypothetical protein FLJ12873	4.63E-03	71307.3	Q9H9B6	1	1	1

TABLE 7-continued

Proteins identified uniquely in Retinal Detachment diagnosed patients (5 patients, 25 runs)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

177	D	LPHN3_HUMAN (Q9HAR2) Latrophilin-3 precursor (Calci⑦	9.90E-03	161709.3	Q9HAR2	1	1	1
178	A	MAGE1_HUMAN (Q9HCI5) Melanoma-associated antigen	6.56E-03	103189.7	Q9HCI5	1	1	1
179	D	OLFL3_HUMAN (Q9NRN5) Olfactomedin-like protein 3 pr⑦	1.86E-03	45981.32	Q9NRN5	1	1	1
180	D	TB22B_HUMAN (Q9NU19) TBC1 domain family member 2⑦	3.31E-03	59044.32	Q9NU19	1	1	1
181	B	CT038_HUMAN (Q9NUV7) Protein C20orf38	7.71E-03	19679.8	Q9NUV7	1	1	1
182	A	Q9NXE3 (Q9NXE3) Hypothetical protein FLJ20298	8.80E-04	26243.39	Q9NXE3	1	1	1
183	E	THUM1_HUMAN (Q9NXG2) THUMP domain containing p⑦	7.48E-03	39290.82	Q9NXG2	1	1	1
184	B	TE2IP_HUMAN (Q9NYB0) Telomeric repeat binding factor⑦	1.44E-03	44232.88	Q9NYB0	1	1	1
185	E	ZN226_HUMAN (Q9NYT6) Zinc finger protein 226	4.95E-03	91861.71	Q9NYT6	1	1	1
186	A	GSCR1_HUMAN (Q9NZM4) Glioma tumor suppressor can⑦	6.54E-03	152898.4	Q9NZM4	1	1	1
187	B	HCN3_HUMAN (Q9P1Z3) Potassium/sodium hyperpolariz⑦	5.36E-03	85977.23	Q9P1Z3	1	1	1
188	A	CEP72_HUMAN (Q9P209) Centrosomal protein of 72 kDa⑦	1.96E-03	71673.01	Q9P209	1	1	1
189	A	CING_HUMAN (Q9P2M7) Cingulin	5.06E-03	136303.7	Q9P2M7	1	1	1
190	D	SL9A2_HUMAN (Q9UBY0) Sodium/hydrogen exchanger 2⑦	6.23E-04	91461.34	Q9UBY0	1	1	1
191	E	Q9UJU1 (Q9UJU1) Cytovillin 2 (Fragment)	8.20E-03	16251.62	Q9UJU1	1	1	1
192	C	STML2_HUMAN (Q9UJZ1) Stomatin-like protein 2 (SLP-2)⑦	2.48E-03	38510.22	Q9UJZ1	1	1	1
193	C	MYH13_HUMAN (Q9UKX3) Myosin-13 (Myosin heavy cha⑦	5.60E-03	223539.2	Q9UKX3	1	1	1
194	D	TTC7A_HUMAN (Q9ULT0) Tetratricopeptide repeat protei⑦	6.23E-03	96123.27	Q9ULT0	1	1	1
195	E	ALK_HUMAN (Q9UM73) ALK tyrosine kinase receptor pre⑦	9.57E-03	176304.4	Q9UM73	1	1	1
196	D	ICAM5_HUMAN (Q9UMF0) Intercellular adhesion molecul⑦	2.21E-03	97270.1	Q9UMF0	1	1	1
197	C	SOX13_HUMAN (Q9UN79) SOX-13 protein (Type 1 diabe⑦	7.41E-03	98718.72	Q9UN79	1	1	1
198	E	CNTN6_HUMAN (Q9UQ52) Contactin 6 precursor (Neural⑦	5.55E-03	113885.1	Q9UQ52	1	1	1
199	A	NALDL_HUMAN (Q9UQQ1) N-acetylated-alpha-linked aci⑦	1.21E-03	80574.27	Q9UQQ1	1	1	1
200	D	CG141_HUMAN (Q9Y3E0) UPF0198 protein CGI-141	5.94E-05	15415.4	Q9Y3E0	1	1	1
201	D	ZN337_HUMAN (Q9Y3M9) Zinc finger protein 337	4.48E-03	86819.26	Q9Y3M9	1	1	1
202	C	TLN1_HUMAN (Q9Y490) Talin-1	3.76E-03	269596.3	Q9Y490	1	1	1
203	C	PCDGB_HUMAN (Q9Y5H2) Protocadherin gamma A11 pr⑦	9.51E-03	101480.6	Q9Y5H2	1	1	1
204	A	WIF1_HUMAN (Q9Y5W5) Wnt inhibitory factor 1 precurso⑦	5.15E-03	41499.8	Q9Y5W5	1	1	1
205	B	S12A7_HUMAN (Q9Y666) Solute carrier family 12 membe⑦	1.59E-04	119072.7	Q9Y666	1	1	1
206	D	SNCAP_HUMAN (Q9Y6H5) Synphilin-1 (Alpha-synuclein-i⑦	5.97E-03	100319	Q9Y6H5	1	1	1

Protein	Location	Function
LOC131076 protein	unknown	function unknown, coiled coiled domain
T-cell activation Rho GTPase-activating protein	cytoplasm	GTP-ase activator, T cell activation
Huntingtin interacting protein E	cytoplasm	signal transduction
Synaptotagmin-5 (Synaptotagmin V) (SytV)	Synaptic	Calcium dependent exocytosis
Huntingtin-associated protein-interacting protein	cytoplasm	signal transduction
VGFR2_Vascular endothelial growth factor receptor 2 precursor	membrane	angiogenesis, vascular permeability
Presynaptic protein SAP97 (Synapse-associated protein 97)	cytoskeleton	scaffolding protein
Retinoblastoma-associated factor 600 (RBAF600) (Fragment)	nucleus	possible chromatin remodeling

⑦ indicates text missing or illegible when filed

[0065]

TABLE 8

Proteins identified uniquely in Macular Hole diagnosed patients (5 patients, 5 pts × 5 runs = 25 runs total for study)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Pathology	Patients	Reference	P (pro)	MW	Accession	Peptide (Hits)	MH Count	TOT ID
1	MH	ILH	Protein KIAA1683	2.65E-04	127611.8	Q9H0B3	1	3	9
2	MH	FH	Apolipoprotein A-IV precursor	4.69E-12	45343.52	P06727	3	2	5
3	MH	HF	KIAA0425 protein	2.12E-04	141056.5	O43308	1	2	5
4	MH	LH	MYH7B protein	5.17E-04	114574.5	Q96I57	1	2	5
5	MH	GI	Sortilin-related receptor precursor	2.94E-04	248280	Q92673	1	2	4
6	MH	G	Ig kappa chain V-II region	4.45E-07	12668.32	P01614	1	1	4
7	MH	G	Ig kappa chain V-II region MIL	4.45E-07	12048.05	P01616	1	1	4
8	MH	F	Piccolo protein (Aczonin)	4.86E-04	566313.1	Q9Y6V0	1	1	4
9	MH	FGH	Alpha-1B-glycoprotein precursor	1.32E-09	54238.7	P04217	1	3	3
10	MH	LIH	Neuronal membrane glycoprotein M6-a	4.39E-03	31188.39	P51674	1	3	3
11	MH	L	Nuclear pore complex protein Nup153	5.51E-03	153793.4	P49790	1	1	3
12	MH	H	Secreted frizzled-related protein 3 precursor	5.30E-06	36230.29	Q92765	1	1	3
13	MH	IL	A-kinase anchor protein 3	2.47E-05	94676.41	O75969	1	2	2
14	MH	GI	Telomeric repeat binding factor 1	2.43E-03	50313.11	P54274	1	2	2
15	MH	IH	Kinesin-like protein KIF1A	3.48E-03	190963.1	Q12756	1	2	2

TABLE 8-continued

Proteins identified uniquely in Macular Hole diagnosed patients (5 patients, 5 pts × 5 runs = 25 runs total for study)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

16	MH	IL	UDP-N-acetylhexosamine pyrophosphorylase	2.88E−03	58731.98	Q16222	1	2	2
17	MH	LH	RIF1_HUMAN (Q5UIP0) Telomere-associated protein ⑦	2.56E−03	274293	Q5UIP0	1	2	2
18	MH	GH	Q6P4H8 (Q6P4H8) Hypothetical protein LOC134145	3.97E−03	26123.47	Q6P4H8	1	2	2
19	MH	HL	Q8IV47 (Q8IV47) Fibromodulin,	6.22E−04	43151.57	Q8IV47	1	2	2
20	MH	LG	Q8N9V7 (Q8N9V7) Hypothetical protein FLJ36157	6.30E−04	77526.28	Q8N9V7	1	2	2
21	MH	HG	LIPB2_HUMAN (Q8ND30) Liprin-beta 2 (Protein tyrosi⑦	3.34E−03	98383.37	Q8ND30	1	2	2
22	MH	GF	SYNE1_HUMAN (Q8NF91) Nesprin-1 (Nuclear envelo⑦	1.60E−03	1010433	Q8NF91	1	2	2
23	MH	LH	K1849_HUMAN (Q96JH8) Protein KIAA1849	6.35E−03	116630	Q96JH8	1	2	2
24	MH	LH	GGA2_HUMAN (Q9UJY4) ADP-ribosylation factor bind	3.44E−03	67133.75	Q9UJY4	1	2	2
25	MH	HL	Q9ULH9 (Q9ULH9) KIAA1241 protein (Fragment)	1.73E−05	97158.45	Q9ULH9	1	2	2
26	MH	LH	CT004_HUMAN (Q9Y312) Protein C20orf4	5.11E−03	43444.13	Q9Y312	1	2	2
27	MH	GF	KIF3A_HUMAN (Q9Y496) Kinesin-like protein KIF3A (⑦	8.14E−04	80335.11	Q9Y496	1	2	2
28	MH	I	CAC1G_HUMAN (O43497) Voltage-dependent T-type ⑦	2.51E−03	262301.1	O43497	1	1	2
29	MH	I	GLU2B_HUMAN (P14314) Glucosidase II beta subunit	1.97E−03	59258.88	P14314	1	1	2
30	MH	F	HBG1_HUMAN (P69891) Hemoglobin gamma-1 subun	8.59E−03	15999.27	P69891	1	1	2
31	MH	F	APXL_HUMAN (Q13796) Apical-like protein (APXL pro	1.55E−03	176302	Q13796	1	1	2
32	MH	I	UBP10_HUMAN (Q14694) Ubiquitin carboxyl-terminal ⑦	1.05E−03	87079.84	Q14694	1	1	2
33	MH	I	Q15394 (Q15394) KIAA0005 protein (Fragment)	6.56E−04	48615.16	Q15394	1	1	2
34	MH	I	Q4V9L7 (Q4V9L7) NGRN protein (Fragment)	4.36E−03	31332.13	Q4V9L7	1	1	2
35	MH	I	Q53SW1 (Q53SW1) Hypothetical protein FLJ20254	2.53E−03	48539.34	Q53SW1	1	1	2
36	MH	H	Q5BLQ2 (Q5BLQ2) Mucin	5.22E−03	289658.2	Q5BLQ2	1	1	2
37	MH	F	Q5JRC3 (Q5JRC3) RPEL repeat containing 1 (Fragme	4.33E−03	25543.2	Q5JRC3	1	1	2
38	MH	F	Q5T2J8 (Q5T2J8) OTTHUMP00000018139 (Fragment	1.44E−03	97147.08	Q5T2J8	1	1	2
39	MH	G	Q65ZC8 (Q65ZC8) Single-chain Fv (Fragment)	3.05E−05	26110.55	Q65ZC8	1	1	2
40	MH	I	VPS36_HUMAN (Q86VN1) Vacuolar protein sorting pr⑦	1.09E−03	43788.79	Q86VN1	1	1	2
41	MH	I	RYR2_HUMAN (Q92736) Ryanodine receptor 2 (Cardi⑦	6.98E−03	564136.1	Q92736	1	1	2
42	MH	I	TOP1M_HUMAN (Q969P6) DNA topoisomerase I, mit⑦	5.03E−03	69828.34	Q969P6	1	1	2
43	MH	F	Q96EK0 (Q96EK0) Hypothetical protein MGC4655	1.44E−03	41865.86	Q96EK0	1	1	2
44	MH	F	Q9BRQ8 (Q9BRQ8) Apoptosis-inducing factor (AIF)-lik	2.48E−03	40501.28	Q9BRQ8	1	1	2
45	MH	I	Q9BS34 (Q9BS34) Zinc finger protein 670 (Hypothetic⑦	7.16E−03	44574.27	Q9BS34	1	1	2
46	MH	I	PLEA5_HUMAN (Q9HAU0) Pleckstrin homology domai	3.50E−03	127384.5	Q9HAU0	1	1	2
47	MH	H	Q5VXU2 (Q5VXU2) Propionyl Coenzyme A carboxylas⑦	1.34E−04	80235.37	Q5VXU2	2	1	1
48	MH	G	SGK1_HUMAN (O00141) Serine/threonine-protein kina	1.08E−03	48925.35	O00141	1	1	1
49	MH	F	O14913 (O14913) Kruppel-associated box protein	2.39E−03	52045.66	O14913	1	1	1
50	MH	G	HAT1_HUMAN (O14929) Histone acetyltransferase typ	1.43E−03	49480.84	O14929	1	1	1
51	MH	F	O15014 (O15014) KIAA0295 protein (Fragment)	2.79E−03	106382.5	O15014	1	1	1
52	MH	L	PDZK3_HUMAN (O15018) PDZ domain containing pro	2.91E−03	301423.4	O15018	1	1	1
53	MH	F	DMN_HUMAN (O15061) Desmuslin	2.87E−03	172662.5	O15061	1	1	1
54	MH	G	SOX12_HUMAN (O15370) SOX-12 protein (SOX-22 pr	1.92E−03	34279.67	O15370	1	1	1
55	MH	F	O43719 (O43719) HIV TAT specific factor 1	2.48E−03	85800.38	O43719	1	1	1
56	MH	F	KPRB_HUMAN (O60256) Phosphoribosyl pyrophospha	3.63E−05	40899.39	O60256	1	1	1
57	MH	H	LSD1_HUMAN (O60341) Lysine-specific histone deme	2.99E−04	92844.88	O60341	1	1	1
58	MH	L	FZD6_HUMAN (O60353) Frizzled 6 precursor (Frizzled	1.13E−03	79222.06	O60353	1	1	1
59	MH	H	O60826 (O60826) JM1 protein (Hypothetical protein C⑦	2.74E−03	70712.32	O60826	1	1	1
60	MH	G	GAS7_HUMAN (O60861) Growth-arrest-specific protei⑦	3.84E−04	47236.75	O60861	1	1	1
61	MH	L	O75179 (O75179) KIAA0697 protein (Fragment)	1.34E−03	263079.2	O75179	1	1	1
62	MH	F	PRPU_HUMAN (O94906) U5 snRNP-associated 102 k	8.74E−03	106857.9	O94906	1	1	1
63	MH	F	SLIK3_HUMAN (O94933) SLIT and NTRK-like protein ⑦	9.29E−03	108937.1	O94933	1	1	1
64	MH	L	O95285 (O95285) Erythroblast macrophage protein E⑦	8.16E−03	43879.31	O95285	1	1	1
65	MH	F	FMNL_HUMAN (O95466) Formin-like 1 protein (Formir	9.19E−03	121750.9	O95466	1	1	1
66	MH	H	HPT_HUMAN (P00738) Haptoglobin precursor [Contai⑦	2.71E−05	45176.59	P00738	1	1	1
67	MH	G	KV2B_HUMAN (P01615) Ig kappa chain V-II region FR	5.81E−04	12651.75	P01615	1	1	1
68	MH	I	CO3A1_HUMAN (P02461) Collagen alpha 1(III) chain p	4.25E−03	138470.2	P02461	1	1	1
69	MH	F	FIBG_HUMAN (P02679) Fibrinogen gamma chain pre⑦	1.61E−04	51478.88	P02679	1	1	1
70	MH	H	CRP_HUMAN (P02741) C-reactive protein precursor [⑦	9.82E−03	25022.68	P02741	1	1	1
71	MH	I	AMBP_HUMAN (P02760) AMBP protein precursor [Co⑦	1.37E−04	38973.99	P02760	1	1	1
72	MH	F	CSF1R_HUMAN (P07333) Macrophage colony-stimula	8.66E−03	107915.2	P07333	1	1	1
73	MH	F	RET_HUMAN (P07949) Proto-oncogene tyrosine-prote	4.41E−03	124239.4	P07949	1	1	1
74	MH	L	RARA_HUMAN (P10276) Retinoic acid receptor alpha ⑦	5.40E−04	50738.42	P10276	1	1	1
75	MH	H	C1TC_HUMAN (P11586) C-1-tetrahydrofolate synthas⑦	2.60E−03	101364.5	P11586	1	1	1
76	MH	L	CSPG2_HUMAN (P13611) Versican core protein precu	7.15E−06	372589	P13611	1	1	1
77	MH	L	K1C13_HUMAN (P13646) Keratin, type I cytoskeletal 1	4.22E−03	49555.45	P13646	1	1	1
78	MH	H	NEBU_HUMAN (P20929) Nebulin	7.84E−04	772742.8	P20929	1	1	1
79	MH	F	PRDX2_HUMAN (P32119) Peroxiredoxin 2 (EC 1.11.1.	9.46E−03	21747.2	P32119	1	1	1
80	MH	G	MYH11_HUMAN (P35749) Myosin-11 (Myosin heavy cl	2.94E−03	227197.9	P35749	1	1	1
81	MH	G	BRCA1_HUMAN (P38398) Breast cancer type 1 susce⑦	9.37E−03	207590.9	P38398	1	1	1
82	MH	L	RL13A_HUMAN (P40429) 60S ribosomal protein L13a	9.48E−03	23431.35	P40429	1	1	1
83	MH	I	STAT1_HUMAN (P42224) Signal transducer and activa	7.68E−03	87279.63	P42224	1	1	1
84	MH	H	RHG25_HUMAN (P42331) Rho-GTPase-activating pro	8.14E−03	72385.19	P42331	1	1	1
85	MH	F	AFAM_HUMAN (P43652) Afamin precursor (Alpha-alb⑦	8.12E−05	69024.09	P43652	1	1	1
86	MH	H	RBP2_HUMAN (P49792) Ran-binding protein 2 (RanB⑦	3.16E−03	357991.4	P49792	1	1	1
87	MH	F	DPOG1_HUMAN (P54098) DNA polymerase gamma s	3.35E−03	139473.4	P54098	1	1	1
88	MH	H	ELL_HUMAN (P55199) RNA polymerase II elongation f	5.19E−03	68222.91	P55199	1	1	1

TABLE 8-continued

Proteins identified uniquely in Macular Hole diagnosed patients (5 patients, 5 pts × 5 runs = 25 runs total for study)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

89	MH	G	CAD12_HUMAN (P55289) Brain-cadherin precursor (B	1.52E−03	88219.76	P55289	1	1	1
90	MH	H	KR102_HUMAN (P60368) Keratin-associated protein 1	1.72E−03	25595.75	P60368	1	1	1
91	MH	L	RT21_HUMAN (P82921) Mitochondrial 28S ribosomal ⑦	2.34E−03	10734.48	P82921	1	1	1
92	MH	I	NSBP1_HUMAN (P82970) Nucleosomal binding protei⑦	1.93E−03	31505.95	P82970	1	1	1
93	MH	G	SCN7A_HUMAN (Q01118) Sodium channel protein typ	1.66E−03	193345	Q01118	1	1	1
94	MH	I	BDH_HUMAN (Q02338) D-beta-hydroxybutyrate dehyd	5.68E−03	38132.47	Q02338	1	1	1
95	MH	L	CK013_HUMAN (Q02833) Protein C11orf13 (HRAS1-r⑦	3.17E−03	39920.6	Q02833	1	1	1
96	MH	L	BPA1_HUMAN (Q03001) Bullous pemphigoid antigen 1	7.39E−03	371976.9	Q03001	1	1	1
97	MH	F	ATP7A_HUMAN (Q04656) Copper-transporting ATPas	3.35E−03	163230	Q04656	1	1	1
98	MH	L	APLP2_HUMAN (Q06481) Amyloid-like protein 2 precu	1.03E−09	86900.28	Q06481	1	1	1
99	MH	L	TRDN_HUMAN (Q13061) Triadin	6.20E−03	81374.51	Q13061	1	1	1
100	MH	F	CSN1_HUMAN (Q13098) COP9 signalosome complex	7.31E−03	53338.1	Q13098	1	1	1
101	MH	H	NOG2_HUMAN (Q13823) Nucleolar GTP-binding prote	9.59E−03	83603.43	Q13823	1	1	1
102	MH	H	Q14159 (Q14159) KIAA0146 protein (Fragment)	1.44E−03	100592.3	Q14159	1	1	1
103	MH	I	BMS1_HUMAN (Q14692) Ribosome biogenesis protei⑦	3.76E−03	145715.5	Q14692	1	1	1
104	MH	L	2A5D_HUMAN (Q14738) Serine/threonine protein phos	2.98E−03	69947.5	Q14738	1	1	1
105	MH	F	RBBP5 HUMAN (Q15291) Retinoblastoma-binding pro	9.99E−03	59044.69	Q15291	1	1	1
106	MH	F	CDC37_HUMAN (Q16543) Hsp90 co-chaperone Cdc3⑦	8.92E−03	44440.05	Q16543	1	1	1
107	MH	H	Q49AA0 (Q49AA0) ZNF642 protein	5.50E−03	61112.29	Q49AA0	1	1	1
108	MH	G	Q4VC44 (Q4VC44) FLYWCH-type zinc finger 1, isoforr	1.11E−03	79985.74	Q4VC44	1	1	1
109	MH	L	Q4VXM4 (Q4VXM4) Chromosome 20 open reading fra	2.21E−03	114932.5	Q4VXM4	1	1	1
110	MH	F	Q53EU6 (Q53EU6) Hypothetical protein (Fragment)	9.80E−04	48673.52	Q53EU6	1	1	1
111	MH	L	Q53RG2 (Q53RG2) Hypothetical protein CHRNG	4.34E−03	58259.47	Q53RG2	1	1	1
112	MH	L	Q562E5 (Q562E5) KIAA0194 protein (Fragment)	3.73E−04	157553.1	Q562E5	1	1	1
113	MH	G	Q59FI9 (Q59FI9) Ribosomal protein L12 variant (Frag⑦	6.72E−03	21469.49	Q59FI9	1	1	1
114	MH	H	Q5JPU1 (Q5JPU1) Pyruvate dehydrogenase (Lipoamid	3.07E−03	22743.74	Q5JPU1	1	1	1
115	MH	L	Q5JTH6 (Q5JTH6) Exosomal core protein CSL4	5.99E−04	18804.54	Q5JTH6	1	1	1
116	MH	L	Q5JX69 (Q5JX69) OTTHUMP00000031352	8.08E−03	19485.96	Q5JX69	1	1	1
117	MH	G	Q5T1J6 (Q5T1J6) OTTHUMP00000030508	4.35E−03	17161.46	Q5T1J6	1	1	1
118	MH	H	Q5TDG2 (Q5TDG2) Hydroxy-delta-5-steroid dehydrog⑦	2.32E−03	42427.11	Q5TDG2	1	1	1
119	MH	L	Q5TYW1 (Q5TYW1) Novel protein (Fragment)	4.42E−03	97254.69	Q5TYW1	1	1	1
120	MH	G	Q5VXI2 (Q5VXI2) Myosin IIIA	7.99E−03	22191.69	Q5VXI2	1	1	1
121	MH	H	Q5VYM8 (Q5VYM8) Unc-13 homolog B (*C. elegans*)	2.31E−03	180563.2	Q5VYM8	1	1	1
122	MH	I	Q5XPV5 (Q5XPV5) Sjogren syndrome antigen A1	5.68E−04	54089.2	Q5XPV5	1	1	1
123	MH	F	Q63HP7 (Q63HP7) Hypothetical protein DKFZp686P15	5.39E−03	65621.97	Q63HP7	1	1	1
124	MH	H	Q659F3 (Q659F3) Hypothetical protein DKFZp434J194	4.86E−03	14956.27	Q659F3	1	1	1
125	MH	F	CEP4_HUMAN (Q66GS9) Centrosomal protein 4 (Cen⑦	9.02E−04	133421.9	Q66GS9	1	1	1
126	MH	I	Q68CI8 (Q68CI8) Hypothetical protein HMFT1272 (Fra⑦	2.38E−03	48598.88	Q68CI8	1	1	1
127	MH	L	Q68DL8 (Q68DL8) Hypothetical protein DKFZp781L03⑦	3.98E−03	84645.59	Q68DL8	1	1	1
128	MH	F	S6A19_HUMAN (Q695T7) Sodium-dependent neutral ⑦	5.44E−03	71063.29	Q695T7	1	1	1
129	MH	L	Q6A334 (Q6A334) Mutated in bladder cancer 1	8.74E−03	61882.69	Q6A334	1	1	1
130	MH	F	Q6IA31 (Q6IA31) FLJ14154 protein	7.48E−03	27415.97	Q6IA31	1	1	1
131	MH	G	Q6IBW4 (Q6IBW4) Em: U62317.2 protein	6.70E−03	68183.7	Q6IBW4	1	1	1
132	MH	I	Q6IE81 (Q6IE81) JADE1L protein	9.07E−03	95472.82	Q6IE81	1	1	1
133	MH	I	Q6IF05 (Q6IF05) Olfactory receptor OR1-47	8.84E−04	37737.82	Q6IF05	1	1	1
134	MH	I	ST6B1_HUMAN (Q6IMI4) Sulfotransferase 6B1 (EC 2⑦	9.60E−03	30491.21	Q6IMI4	1	1	1
135	MH	G	PTRF_HUMAN (Q6NZI2) Polymerase I and transcript ⑦	1.14E−03	43449.88	Q6NZI2	1	1	1
136	MH	I	Q6P3W7 (Q6P3W7) Similar to mouse D10Ertd802e pr⑦	9.06E−04	103642.4	Q6P3W7	1	1	1
137	MH	F	Q6P658 (Q6P658) FNBP1 protein (Fragment)	6.14E−04	40759.38	Q6P658	1	1	1
138	MH	H	GP133_HUMAN (Q6QNK2) Probable G-protein couple⑦	7.32E−03	96468.2	Q6QNK2	1	1	1
139	MH	F	Q6UXX5 (Q6UXX5) ITI-like protein (Inter-alpha (Globul	6.30E−03	143097.8	Q6UXX5	1	1	1
140	MH	H	Q6ZMV7 (Q6ZMV7) Hypothetical protein FLJ16641	5.36E−03	45118.72	Q6ZMV7	1	1	1
141	MH	L	Q6ZMX7 (Q6ZMX7) Hypothetical protein FLJ16607	1.23E−03	147809.7	Q6ZMX7	1	1	1
142	MH	L	Q6ZQN2 (Q6ZQN2) Hypothetical protein FLJ46846	2.18E−03	180573.9	Q6ZQN2	1	1	1
143	MH	H	Q6ZVL2 (Q6ZVL2) Hypothetical protein FLJ42427	7.92E−03	15702.14	Q6ZVL2	1	1	1
144	MH	F	Q6ZW87 (Q6ZW87) Hypothetical protein FLJ41443	5.09E−03	24773.63	Q6ZW87	1	1	1
145	MH	I	Q7KYS7 (Q7KYS7) Hypothetical protein (Fragment)	1.53E−03	31128.16	Q7KYS7	1	1	1
146	MH	G	Q7RTS7 (Q7RTS7) Keratin 5c	4.83E−03	59333.45	Q7RTS7	1	1	1
147	MH	F	CA036_HUMAN (Q7Z3Z2) Protein C1orf36	1.27E−04	22689.57	Q7Z3Z2	1	1	1
148	MH	I	Q7Z736 (Q7Z736) Hypothetical protein FLJ21019	7.52E−03	85273.38	Q7Z736	1	1	1
149	MH	I	Q86VJ1 (Q86VJ1) E3 ligase for inhibin receptor	9.51E−03	289427.4	Q86VJ1	1	1	1
150	MH	L	Q86Y22 (Q86Y22) Alpha 1 type XXIII collagen	3.71E−03	51912.29	Q86Y22	1	1	1
151	MH	F	Q8IUA7 (Q8IUA7) ATP-binding cassette sub-family An	5.35E−03	184241.6	Q8IUA7	1	1	1
152	MH	G	Q8IUG8 (Q8IUG8) Carnitine transporter 2	6.69E−03	60830.3	Q8IUG8	1	1	1
153	MH	F	Q8IUS2 (Q8IUS2) LOC339483 protein	3.48E−03	2870.257	Q8IUS2	1	1	1
154	MH	L	Q8IZA4 (Q8IZA4) ELYS transcription factor-like protein	5.66E−03	256022.6	Q8IZA4	1	1	1
155	MH	L	ASPM_HUMAN (Q8IZT6) Abnormal spindle-like microc	4.72E−03	409539.8	Q8IZT6	1	1	1
156	MH	G	Q8N1G4 (Q8N1G4) Hypothetical protein LRRC47 (Nov	2.19E−03	63433.89	Q8N1G4	1	1	1
157	MH	H	Q8N401 (Q8N401) KIAA1632 protein	8.67E−03	52340.19	Q8N401	1	1	1
158	MH	L	DCAK2_HUMAN (Q8N568) Serine/threonine-protein ki⑦	4.26E−03	83587.57	Q8N568	1	1	1
159	MH	L	Q8N5E0 (Q8N5E0) Apoptosis-inducing factor like, isof⑦	5.12E−03	65924.3	Q8N5E0	1	1	1
160	MH	F	Q8NC99 (Q8NC99) Hypothetical protein FLJ90396	5.35E−03	66758.55	Q8NC99	1	1	1
161	MH	H	Q8NF06 (Q8NF06) FLJ00398 protein (Fragment)	1.78E−04	72000.41	Q8NF06	1	1	1

TABLE 8-continued

Proteins identified uniquely in Macular Hole diagnosed patients (5 patients, 5 pts × 5 runs = 25 runs total for study)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

162	MH	G	Q8NFY8 (Q8NFY8) Neuroblastoma-amplified protein	1.13E−03	268295.4	Q8NFY8	1	1	1
163	MH	L	O10A7_HUMAN (Q8NGE5) Olfactory receptor 10A7	8.56E−03	35670.34	Q8NGE5	1	1	1
164	MH	F	Q8NH29 (Q8NH29) Seven transmembrane helix recep?	1.70E−04	25373.85	Q8NH29	1	1	1
165	MH	G	IL17D_HUMAN (Q8TAD2) Interleukin-17D precursor (II	6.37E−03	21879.14	Q8TAD2	1	1	1
166	MH	F	Q8TCE1 (Q8TCE1) SERPINC1 protein	2.30E−05	29073.79	Q8TCE1	1	1	1
167	MH	F	Q8TCJ2 (Q8TCJ2) Source of immunodominant MHC-a	3.14E−04	93613.76	Q8TCJ2	1	1	1
168	MH	F	DDX54_HUMAN (Q8TDD1) DEAD-box protein 54 (EC	1.74E−03	98534.24	Q8TDD1	1	1	1
169	MH	G	Q92772 (Q92772) P56 KKIAMRE protein kinase (Cycli?	6.77E−03	55982.93	Q92772	1	1	1
170	MH	L	COR2A_HUMAN (Q92828) Coronin-2A (WD repeat-co	3.04E−03	59725.43	Q92828	1	1	1
171	MH	G	Q96E20 (Q96E20) CD99L2 protein (Hypothetical protei	3.63E−03	16612.17	Q96E20	1	1	1
172	MH	L	Q96IV6 (Q96IV6) C5orf4 protein	4.48E−03	38976.07	Q96IV6	1	1	1
173	MH	L	RSRC1_HUMAN (Q96IZ7) Arginine/serine-rich coiled c	8.17E−03	38654.46	Q96IZ7	1	1	1
174	MH	G	KCNH8_HUMAN (Q96L42) Potassium voltage-gated c?	3.90E−04	123754.3	Q96L42	1	1	1
175	MH	F	Q96MP4 (Q96MP4) Hypothetical protein FLJ32091	6.67E−03	81413.94	Q96MP4	1	1	1
176	MH	H	Q96NI8 (Q96NI8) Hypothetical protein FLJ30791	4.72E−03	62289.69	Q96NI8	1	1	1
177	MH	H	ZN285_HUMAN (Q96NJ3) Zinc finger protein 285	2.66E−03	50009.57	Q96NJ3	1	1	1
178	MH	H	INP4A_HUMAN (Q96PE3) Type I inositol-3,4-bisphosp?	2.98E−04	109885.5	Q96PE3	1	1	1
179	MH	G	UHRF2_HUMAN (Q96PU4) Ubiquitin-like containing P?	6.47E−03	89927.86	Q96PU4	1	1	1
180	MH	G	Q96QE0 (Q96QE0) Hypothetical protein DL8Q12	3.39E−03	23959.2	Q96QE0	1	1	1
181	MH	H	PANX2_HUMAN (Q96RD6) Pannexin-2	7.29E−03	69434.98	Q96RD6	1	1	1
182	MH	G	Q96RF2 (Q96RF2) WWOXdelta5-8	3.55E−03	35019.5	Q96RF2	1	1	1
183	MH	L	LYST_HUMAN (Q99698) Lysosomal trafficking regulat?	7.47E−03	428865.6	Q99698	1	1	1
184	MH	H	SMO_HUMAN (Q99835) Smoothened homolog precur?	7.04E−05	86341.18	Q99835	1	1	1
185	MH	L	Q99993 (Q99993) WUGSC:H_2G3A.1 protein	4.36E−03	60051.64	Q99993	1	1	1
186	MH	L	OSR10_HUMAN (Q9BXB5) Oxysterol binding protein-r?	7.10E−03	83917.38	Q9BXB5	1	1	1
187	MH	H	EMR3_HUMAN (Q9BY15) EGF-like module containing	6.97E−03	72545.69	Q9BY15	1	1	1
188	MH	F	Q9BYJ0 (Q9BYJ0) Ksp37 (HBp17-related protein)	6.42E−04	24565.15	Q9BYJ0	1	1	1
189	MH	G	OSR7_HUMAN (Q9BZF2) Oxysterol binding protein-rel	3.33E−04	95371.7	Q9BZF2	1	1	1
190	MH	L	Q9BZH2 (Q9BZH2) False p73 target protein	2.66E−03	53043.29	Q9BZH2	1	1	1
191	MH	I	PHAR1_HUMAN (Q9C0D0) Phosphatase and actin reg	2.72E−04	54573.55	Q9C0D0	1	1	1
192	MH	G	Q9C0D4 (Q9C0D4) KIAA1729 protein (Fragment)	1.84E−03	113646.6	Q9C0D4	1	1	1
193	MH	L	DDX24_HUMAN (Q9GZR7) ATP-dependent RNA helic	7.26E−03	96271.52	Q9GZR7	1	1	1
194	MH	L	Q9GZT6 (Q9GZT6) MDS011 (Hypothetical protein MD?	4.53E−03	29453.17	Q9GZT6	1	1	1
195	MH	H	Q9H0J7 (Q9H0J7) Hypothetical protein DKFZp434F01	2.81E−04	53323.07	Q9H0J7	1	1	1
196	MH	L	GHITM_HUMAN (Q9H3K2) Growth hormone inducible	4.28E−03	37180.59	Q9H3K2	1	1	1
197	MH	H	Q9H3M9 (Q9H3M9) *Homo sapiens* (Fragment)	5.36E−03	39581.41	Q9H3M9	1	1	1
198	MH	H	RANB3_HUMAN (Q9H6Z4) Ran-binding protein 3 (Ran	3.82E−03	60173.32	Q9H6Z4	1	1	1
199	MH	H	SMYD3_HUMAN (Q9H7B4) SET and MYND domain-c?	5.56E−03	49050.59	Q9H7B4	1	1	1
200	MH	L	Q9H7C4 (Q9H7C4) Hypothetical protein FLJ21054	8.68E−03	17715.02	Q9H7C4	1	1	1
201	MH	L	COG4_HUMAN (Q9H9E3) Conserved oligomeric Golgi	9.55E−03	89038.48	Q9H9E3	1	1	1
202	MH	G	UBP29_HUMAN (Q9HBJ7) Ubiquitin carboxyl-terminal	1.22E−03	104090.1	Q9HBJ7	1	1	1
203	MH	H	Q9HBY0 (Q9HBY0) Putative superoxide-generating NA	4.96E−03	64893.13	Q9HBY0	1	1	1
204	MH	F	SYTL2_HUMAN (Q9HCH5) Synaptotagmin-like protein	8.61E−04	100734.4	Q9HCH5	1	1	1
205	MH	F	Q9NR16 (Q9NR16) Scavenger receptor cysteine-rich t?	6.17E−03	159159.5	Q9NR16	1	1	1
206	MH	L	SPTN5_HUMAN (Q9NRC6) Spectrin beta chain, brain	3.96E−04	416577.2	Q9NRC6	1	1	1
207	MH	L	DC13_HUMAN (Q9NRP2) UPF0287 protein DC13	2.81E−03	9453.72	Q9NRP2	1	1	1
208	MH	F	Q9NS87 (Q9NS87) Kinesin-like protein 2	4.45E−03	160060.4	Q9NS87	1	1	1
209	MH	G	Q9NSN6 (Q9NSN6) Hypothetical protein DKFZp761O0	6.56E−03	39970.1	Q9NSN6	1	1	1
210	MH	H	EMIL3_HUMAN (Q9NT22) EMILIN-3 precursor (EMILIN	3.69E−03	82595.73	Q9NT22	1	1	1
211	MH	H	UGGG1_HUMAN (Q9NYU2) UDP-glucose: glycoprotei?	3.83E−03	174866.5	Q9NYU2	1	1	1
212	MH	H	T2R14_HUMAN (Q9NYV8) Taste receptor type 2 mem	1.33E−03	36136.48	Q9NYV8	1	1	1
213	MH	F	COMD9_HUMAN (Q9P000) COMM domain containing	4.29E−04	21904.53	Q9P000	1	1	1
214	MH	L	VPS18_HUMAN (Q9P253) Vacuolar protein sorting 18	7.01E−03	110115.9	Q9P253	1	1	1
215	MH	I	RRBP1_HUMAN (Q9P2E9) Ribosome-binding protein	4.24E−03	152380	Q9P2E9	1	1	1
216	MH	G	SUCB1_HUMAN (Q9P2R7) Succinyl-CoA ligase [ADP-	8.47E−03	50299.33	Q9P2R7	1	1	1
217	MH	I	GT2D1_HUMAN (Q9UHL9) General transcription facto?	4.56E−03	105990.8	Q9UHL9	1	1	1
218	MH	G	Q9UI74 (Q9UI74) PRO0245	7.12E−04	8075.004	Q9UI74	1	1	1
219	MH	L	SPB13_HUMAN (Q9UIV8) Serpin B13 (Hurpin) (HaCa?	8.72E−04	44248.2	Q9UIV8	1	1	1
220	MH	I	HOOK1_HUMAN (Q9UJC3) Hook homolog 1 (h-hook1	9.77E−03	84594.84	Q9UJC3	1	1	1
221	MH	F	DKKL1_HUMAN (Q9UK85) Dickkopf-like protein 1 pre?	1.36E−04	26990.23	Q9UK85	1	1	1
222	MH	L	PADI3_HUMAN (Q9ULW8) Protein-arginine deiminase	9.91E−04	74695.37	Q9ULW8	1	1	1
223	MH	H	MLL4_HUMAN (Q9UMN6) Myeloid/lymphoid or mixed-I	9.43E−03	293327.3	Q9UMN6	1	1	1
224	MH	H	GPR34_HUMAN (Q9UPC5) Probable G-protein couple	8.71E−03	43831.09	Q9UPC5	1	1	1
225	MH	G	Q9UQ10 (Q9UQ10) Dimeric dihydrodiol dehydrogenas?	9.73E−03	36358.77	Q9UQ10	1	1	1
226	MH	I	SHOC2_HUMAN (Q9UQ13) Leucine-rich repeat protei?	3.26E−03	64847.64	Q9UQ13	1	1	1
227	MH	G	AT11B_HUMAN (Q9Y2G3) Probable phospholipid-tran?	9.84E−03	134104.1	Q9Y2G3	1	1	1
228	MH	F	PCDG7_HUMAN (Q9Y5G6) Protocadherin gamma A7	2.96E−03	101659.2	Q9Y5G6	1	1	1
229	MH	L	PCDA2_HUMAN (Q9Y5H9) Protocadherin alpha 2 pre?	6.26E−03	102000.4	Q9Y5H9	1	1	1
230	MH	G	Q9Y5S5 (Q9Y5S5) DNA polymerase epsilon catalytic s	9.10E−03	262846.1	Q9Y5S5	1	1	1
231	MH	F	SO1B1_HUMAN (Q9Y6L6) Solute carrier organic anion	1.51E−03	76398.98	Q9Y6L6	1	1	1

TABLE 8-continued

Proteins identified uniquely in Macular Hole diagnosed patients (5 patients, 5 pts × 5 runs = 25 runs total for study)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

Protein	Sub-cellular Location	Function
Sortilin-related receptor precursor	membrane	endocytic receptor
Neuronal membrane glycoprotein M6-a	membrane	neural development
Kinesin-like protein KIF1A	synaptic vesicles	axonal transport
Voltage-dependent T-type calcium channel alpha-1G subunit	membrane	calcium influx/eflux
Ryanodine receptor 2 (Cardiac muscle-type ryanodine receptor)	membrane	Communication between transverse-tubules and sarcoplasmic reticulum
SOX-12 protein (SOX-22 protein)	nucleus	non-histone DNA binding
Frizzled 6 precursor (Frizzled-6) (Fz-6) (hFz6)	membrane	cell differentitation/morphogenesis
Retinoblastoma-binding protein 5 (RBBP-5)	nucleus	transcription
Retinoic acid receptor alpha (RAR-alpha)	nucleus	retonic acid receptor

8.0 ul vitreous/patient
8.0 × 5 = 40 ul/patient for study
⑦ indicates text missing or illegible when filed

[0066]

TABLE 9

Vitreous proteins identified from patients with retinal detachment (RD)

	Protein	Accession	MW	P (pro)
1	LOC131076 protein	Q4VC31	16609.49	2.50E-03
2	Keratin, type II	Q14533	54935.82	5.27E-07
3	Histone acetyltransferase	Q92831	92953.77	6.68E-04
4	Cathepsin D precursor	P07339	44523.66	3.66E-09
5	Peroxiredoxin 1	Q06830	22096.28	1.57E-06
6	Nuclear pore complex protein Nup214	P35658	213632.8	4.38E-03
7	T-cell activation Rho GTPase-activating protein	Q8N103	80652.9	5.60E-03
8	Protein C9orf126	Q8N9R8	70385.07	1.82E-03
9	Receptor interacting protein kinase 5	Q5RKT0	99957.35	2.01E-03
10	Novel protein	Q5VVM6	91277.53	2.74E-04
11	Potassium voltage-gated channel subfamily A	Q09470	56505.6	8.04E-04
12	Huntingtin interacting protein E	Q9BVA6	51745.16	7.33E-05
13	KIAA0068 protein (Fragment)	Q14467	147040.6	2.65E-04
14	Hypothetical protein FLJ21129	Q9H796	63276.44	2.87E-03
15	HS1-associating protein X-1	O00165	31601.06	2.63E-03
16	Inositol polyphosphate 5-phosphatase	O15357	138498.9	1.69E-04
17	DNA repair protein RAD51 homolog 3	O43502	42162.89	3.18E-03
18	Ig lambda chain V region	P04211	12372.02	4.35E-03
19	Keratin, type II	P04259	59831.25	4.19E-05
20	Cation-independent mannose-6-phosphate receptor	P11717	274097.6	5.66E-03
21	Macrophage scavenger receptor types I and II	P21757	49730.82	7.76E-04
22	Matrin-3	P43243	94564.67	3.80E-03
23	Voltage-dependent anion-selective channel protein 2	P45880	38068.68	4.14E-04
24	FLJ00268 protein (Fragment)	Q6ZML5	72805.3	2.78E-03
25	LAG1 longevity assurance homolog 2	Q96G23	44847.38	1.46E-04
26	Serine/threonine-protein kinase	Q96J92	134655.6	8.12E-03
27	Hypothetical protein FLJ13940	Q9H853	27528.79	2.89E-03
28	Adenylate kinase isoenzyme 2	P54819	26329.73	1.02E-03
29	DAX1_HUMAN (P51843) Nuclear receptor 0B1 (Nuclear receptor DAX-1) (DSS-AHC	P51843	51683.89	1.40E-03
30	ZN473_HUMAN (Q8WTR7) Zinc finger protein 473 (Zinc finger protein 100 homolog)	Q8WTR7	100118.1	2.47E-03
31	CPSF3_HUMAN (Q9UKF6) Cleavage and polyadenylation specificity factor, 73 kDa su	Q9UKF6	77436.22	1.14E-03
32	K2C5_HUMAN (P13647) Keratin, type II cytoskeletal 5 (Cytokeratin-5) (CK-5) (Ke	P13647	62409.08	7.34E-08
33	CAH1_HUMAN (P00915) Carbonic anhydrase 1 (EC 4.2.1.1) (Carbonic anhydrase I) (	P00915	28721.34	8.52E-08
34	KNG1_HUMAN (P01042) Kininogen-1 precursor (Alpha-2-thiol proteinase inhibitor)	P01042	71900.1	2.12E-10
35	K1C14_HUMAN (P02533) Keratin, type I cytoskeletal 14 (Cytokeratin-14) (CK-14)	P02533	51458.45	3.33E-06
36	O00211 (O00211) HSLK (Ste20-related serineVthreonine kinase)	O00211	138909.7	8.39E-03
37	P3C2A_HUMAN (O00443) Phosphatidylinositol-4-phosphate 3-kinase C2 domain-cont	O00443	190616.2	7.07E-03
38	SYT5_HUMAN (O00445) Synaptotagmin-5 (Synaptotagmin V) (SytV)	O00445	42873.54	3.71E-03
39	CHD2_HUMAN (O14647) Chromodomain-helicase-DNA-binding protein 2 (CHD-2)	O14647	200437.6	7.04E-03
40	MLL2_HUMAN (O14686) Myeloid/lymphoid or mixed-lineage leukemia protein 2 (ALL1	O14686	563835.8	8.21E-04
41	O15042 (O15042) Hypothetical protein KIAA0332 (U2-associated SR140 protein) (Fr	O15042	118087.4	7.16E-04
42	SNPH_HUMAN (O15079) Syntaphilin	O15079	57953.73	7.58E-03
43	WDR46_HUMAN (O15213) WD-repeat protein 46 (WD-repeat protein BING4)	O15213	67998.89	3.67E-03
44	HAPIP_HUMAN (O60229) Huntingtin-associated protein-interacting protein (Duo pr	O60229	192107.9	3.37E-03

TABLE 9-continued

Vitreous proteins identified from patients with retinal detachment (RD)

	Protein	Accession	MW	P (pro)
45	O60687 (O60687) Sushi-repeat-containing protein, X-linked 2	O60687	52937.79	4.07E-03
46	ZC11A_HUMAN (O75152) Zinc finger CCCH-type domain containing protein 11A	O75152	89076.06	4.33E-03
47	O75198 (O75198) CDC37-like gene	O75198	26530.93	1.49E-03
48	AVIL_HUMAN (O75366) Advillin (p92)	O75366	92028.35	8.01E-03
49	MYCB2_HUMAN (O75592) Probable ubiquitin ligase protein MYCBP2 (EC 6.3.2.—) (My	O75592	509842.3	7.36E-03
50	CMC1_HUMAN (O75746) Calcium-binding mitochondrial carrier protein Aralar1 (Mit	O75746	74709.01	3.32E-03
51	MFN2_HUMAN (O95140) Transmembrane GTPase MFN2 (EC 3.6.5.—) (Mitofusin-2)	O95140	86346.95	4.18E-03
52	G6PE_HUMAN (O95479) GDH/6PGL endoplasmic bifunctional protein precursor [Incl	O95479	88822.63	3.69E-03
53	HPTR_HUMAN (P00739) Haptoglobin-related protein precursor	P00739	38982.66	5.05E-03
54	CFAB_HUMAN (P00751) Complement factor B precursor (EC 3.4.21.47) (C3/C5 conv	P00751	85478.58	2.24E-04
55	ASSY_HUMAN (P00966) Argininosuccinate synthase (EC 6.3.4.5) (Citrulline-aspar	P00966	46501.01	4.02E-03
56	HRG_HUMAN (P04196) Histidine-rich glycoprotein precursor (Histidine-proline-ri	P04196	59540.94	5.94E-04
57	CFAI_HUMAN (P05156) Complement factor I precursor (EC 3.4.21.45) (C3B/C4B inac	P05156	65676.66	2.93E-05
58	ITB1_HUMAN (P05556) Integrin beta-1 precursor (Fibronectin receptor beta subun	P05556	88406.98	7.50E-05
59	KV2F_HUMAN (P06310) Ig kappa chain V-II region RPMI 6410 precursor	P06310	14697.37	1.78E-06
60	K1C16_HUMAN (P08779) Keratin, type I cytoskeletal 16 (Cytokeratin-16) (CK-16) (	P08779	51105.21	1.08E-06
61	TAU_HUMAN (P10636) Microtubule-associated protein tau (Neurofibrillary tangle	P10636	78698.83	7.47E-04
62	PABP1_HUMAN (P11940) Polyadenylate-binding protein 1 (Poly(A)-binding protein	P11940	70626.04	9.99E-03
63	SCG2_HUMAN (P13521) Secretogranin-2 precursor (Secretogranin II) (SgII) (Chromo	P13521	70825.11	6.93E-03
64	UCHL3_HUMAN (P15374) Ubiquitin carboxyl-terminal hydrolase isozyme L3 (EC 3.4.	P15374	26165.98	6.36E-03
65	CBPE_HUMAN (P16870) Carboxypeptidase E precursor (EC 3.4.17.10) (CPE) (Carbo:	P16870	53117.17	1.65E-06
66	AATC_HUMAN (P17174) Aspartate aminotransferase, cytoplasmic (EC 2.6.1.1) (Tran	P17174	46087.54	9.28E-03
67	A1ATR_HUMAN (P20848) Alpha-1-antitrypsin-related protein precursor	P20848	47860.97	7.19E-03
68	RAE2_HUMAN (P26374) Rab proteins geranylgeranyltransferase component A 2 (Rab	P26374	74024.21	1.83E-03
69	VGFR2_HUMAN (P35968) Vascular endothelial growth factor receptor 2 precursor (	P35968	151430.5	1.56E-03
70	CH3L1_HUMAN (P36222) Chitinase-3-like protein 1 precursor (Cartilage glycoprot	P36222	42586.39	2.71E-06
71	MAP1B_HUMAN (P46821) Microtubule-associated protein 1B (MAP 1B) [Contains: M	P46821	270451.8	5.22E-03
72	PCY1A_HUMAN (P49585) Choline-phosphate cytidylyltransferase A (EC 2.7.7.15) (P	P49585	41705.8	3.65E-03
73	CEBPD_HUMAN (P49716) CCAAT/enhancer binding protein delta (C/EBP delta) (Nuc	P49716	28461.45	6.61E-03
74	CCR6_HUMAN (P51684) C—C chemokine receptor type 6 (C—C CKR-6) (CC-CKR-6) (	P51684	42465.93	7.26E-03
75	EPHA5_HUMAN (P54756) Ephrin type-A receptor 5 precursor (EC 2.7.1.112) (Tyrosi	P54756	114710.3	7.74E-03
76	PSD4_HUMAN (P55036) 26S proteasome non-ATPase regulatory subunit 4 (26S pro	P55036	40711.21	6.62E-04
77	B2MG_HUMAN (P61769) Beta-2-microglobulin precursor [Contains: Beta-2-microglob	P61769	13705.91	3.51E-07
78	GBB1_HUMAN (P62873) Guanine nucleotide-binding protein G(I)/G(S)/G(T) beta sub	P62873	37221.98	1.27E-03
79	CXAR_HUMAN (P78310) Coxsackievirus and adenovirus receptor precursor (Coxsac	P78310	40004.39	1.03E-03
80	GALT1_HUMAN (Q10472) Polypeptide N-acetylgalactosaminyltransferase 1 (EC 2.4.1	Q10472	64177.48	3.87E-03
81	PTN13_HUMAN (Q12923) Tyrosine-protein phosphatase, non-receptor type 13 (EC 3.	Q12923	276731.3	3.13E-05
82	DLG1_HUMAN (Q12959) Presynaptic protein SAP97 (Synapse-associated protein 97)	Q12959	100293.1	6.56E-03
83	AKAP6_HUMAN (Q13023) A-kinase anchor protein 6 (Protein kinase A anchoring pro	Q13023	256503.6	1.63E-03
84	ATM_HUMAN (Q13315) Serine-protein kinase ATM (EC 2.7.1.37) (Ataxia telangiecta	Q13315	350417.1	4.51E-03
85	ROCK1_HUMAN (Q13464) Rho-associated protein kinase 1 (EC 2.7.1.37) (Rho-assoc	Q13464	158074.9	1.42E-03
86	ENPP2_HUMAN (Q13822) Ectonucleotide pyrophosphatase/phosphodiesterase 2 (E-	Q13822	98939.61	5.80E-10
87	SMC1A_HUMAN (Q14683) Structural maintenance of chromosome 1-like 1 protein (S	Q14683	143143.6	9.76E-04
88	NOLC1_HUMAN (Q14978) Nucleolar phosphoprotein p130 (Nucleolar 130 kDa protein	Q14978	73676.72	1.80E-03
89	PLEC1_HUMAN (Q15149) Plectin 1 (PLTN) (PCN) (Hemidesmosomal protein 1) (HD1	Q15149	531411.9	2.61E-04
90	K1H1_HUMAN (Q15323) Keratin, type I cuticular Ha1 (Hair keratin, type I Ha1)	Q15323	47202.1	1.36E-03
91	NCOA1_HUMAN (Q15788) Nuclear receptor coactivator 1 (EC 2.3.1.48) (NCoA-1) (St	Q15788	156641.7	4.14E-04
92	Q15813 (Q15813) Beta-tubulin cofactor E (Tubulin-specific chaperone e)	Q15813	59309.08	5.90E-03
93	SCN9A_HUMAN (Q15858) Sodium channel protein type IX alpha subunit (Voltage-gat	Q15858	226193.9	6.73E-03
94	Q495C9 (Q495C9) Hypothetical protein LOC149134	Q495C9	13623.18	6.59E-03
95	Q4G0M1 (Q4G0M1) FLJ37034 protein (Fragment)	Q4G0M1	14453.34	6.80E-03
96	Q567P4 (Q567P4) Hypothetical protein (Fragment)	Q567P4	34603.27	2.58E-03
97	LRC10_HUMAN (Q5BKY1) Leucine-rich repeat-containing protein 10	Q5BKY1	31621.81	9.03E-04
98	Q5H9K7 (Q5H9K7) Novel protein (Fragment)	Q5H9K7	38685.59	6.32E-03
99	Q5H9K8 (Q5H9K8) Armadillo repeat containing, X-linked 4 (Fragment)	Q5H9K8	36484.3	7.72E-03
100	Q5JRL1 (Q5JRL1) Novel protein	Q5JRL1	30747.36	6.73E-03
101	Q5T364 (Q5T364) OTTHUMP00000022702	Q5T364	101941	4.05E-03
102	Q5T3B9 (Q5T3B9) Novel protein	Q5T3B9	45993.33	4.46E-03
103	Q5TBP2 (Q5TBP2) Retinoblastoma-associated factor 600 (RBAF600) (Fragment)	Q5TBP2	106303.1	4.66E-03
104	Q5VWL1 (Q5VWL1) Membrane-associated guanylate kinase-related 3 (MAGI-3)	Q5VWL1	162847.8	7.51E-03
105	Q5XLJ0 (Q5XLJ0) AIDA1C transcript variant 4	Q5XLJ0	48400.84	9.99E-03
106	Q6DN23 (Q6DN23) Platelet phospholipase A2	Q6DN23	16135.78	4.11E-03
107	Q6IAM5 (Q6IAM5) SLC27A6 protein	Q6IAM5	70042.55	3.12E-03
108	Q6JIC5 (Q6JIC5) Cementum attachment protein	Q6JIC5	14910.42	9.87E-03
109	Q6MZX7 (Q6MZX7) Hypothetical protein DKFZp686M24218	Q6MZX7	52387.13	1.00E-30
110	Q6P2C5 (Q6P2C5) PHF2 protein	Q6P2C5	35720.63	5.50E-03
111	Q6P528 (Q6P528) ASPN protein	Q6P528	43863.48	8.71E-03
112	POTE2_HUMAN (Q6S8J3) Prostate, ovary, testis expressed protein on chromosome 2	Q6S8J3	80701.5	6.93E-03
113	Q6UXZ8 (Q6UXZ8) FVSY9334	Q6UXZ8	24230.68	7.07E-04
114	Q6ZN08 (Q6ZN08) Hypothetical protein FLJ16537	Q6ZN08	38813.18	4.37E-04
115	Q6ZR14 (Q6ZR14) Hypothetical protein FLJ46736	Q6ZR14	126662.9	8.79E-03
116	Q6ZSK5 (Q6ZSK5) Hypothetical protein FLJ45433	Q6ZSK5	15222.69	6.04E-03

TABLE 9-continued

Vitreous proteins identified from patients with retinal detachment (RD)

	Protein	Accession	MW	P (pro)
117	Q6ZSY5 (Q6ZSY5) Hypothetical protein FLJ45123	Q6ZSY5	42154.05	7.90E-03
118	Q6ZVQ3 (Q6ZVQ3) Hypothetical protein FLJ42220	Q6ZVQ3	17595.21	1.14E-03
119	Q6ZW49 (Q6ZW49) Hypothetical protein FLJ41606	Q6ZW49	117615.6	3.89E-03
120	Q70AK8 (Q70AK8) Ankyrin-repeat-ARM domain protein (Fragment)	Q70AK8	40496.33	8.67E-04
121	Q70CQ2 (Q70CQ2) Ubiquitin-specific proteinase 34	Q70CQ2	386873.7	9.41E-03
122	Q76E79 (Q76E79) Mitochondrial methionyl-tRNA synthetase	Q76E79	66584.84	2.95E-03
123	Q7L7Q2 (Q7L7Q2) BLOM7 beta (Novel protein)	Q7L7Q2	59101.39	1.49E-04
124	Q7Z3P5 (Q7Z3P5) Hypothetical protein DKFZp686P13218	Q7Z3P5	30940.46	5.90E-04
125	NPHP3_HUMAN (Q7Z494) Nephrocystin-3	Q7Z494	150768.9	5.74E-03
126	Q86VG6 (Q86VG6) Hypothetical protein	Q86VG6	11523.95	3.43E-03
127	TXND2_HUMAN (Q86VQ3) Thioredoxin domain-containing protein 2 (Spermatid-speci	Q86VQ3	60424.09	7.89E-04
128	NAL14_HUMAN (Q86W24) NACHT-, LRR- and PYD-containing protein 14 (Nucleotide	Q86W24	124651.5	1.88E-03
129	Q86WW8 (Q86WW8) Hypothetical protein MGC52110 (Hypothetical protein tmp_locu	Q86WW8	8370.071	4.59E-03
130	Q86Y92 (Q86Y92) Similar to KIAA0922 protein (Fragment)	Q86Y92	154618.6	2.24E-03
131	Q8IV73 (Q8IV73) Guanine nucleotide-releasing factor 2, isoform b	Q8IV73	122658.6	3.40E-03
132	Q8IVL1 (Q8IVL1) Steerin2 protein	Q8IVL1	267950.3	2.98E-03
133	Q8IVM4 (Q8IVM4) Hypothetical protein	Q8IVM4	6014.06	8.10E-03
134	FA20C_HUMAN (Q8IXL6) Protein FAM20C precursor	Q8IXL6	64405.57	5.31E-03
135	Q8IY66 (Q8IY66) DNA ligase IV (Ligase IV, DNA, ATP-dependent)	Q8IY66	103904	7.76E-03
136	GP115_HUMAN (Q8IZF3) Probable G-protein coupled receptor 115 (G-protein couple	Q8IZF3	83775.66	5.14E-04
137	Q8IZQ1 (Q8IZQ1) ALFY	Q8IZQ1	394992	6.15E-03
138	AHI1_HUMAN (Q8N157) Jouberin (Abelson helper integration site 1 protein homolo	Q8N157	137029	2.76E-03
139	Q8N1K5 (Q8N1K5) Hypothetical protein FLJ40584	Q8N1K5	73625.31	5.82E-03
140	Q8N3I3 (Q8N3I3) Hypothetical protein DKFZp761P18121	Q8N3I3	81550.7	3.18E-03
141	Q8N543 (Q8N543) Hypothetical protein FLJ10826	Q8N543	63206.21	1.90E-03
142	Q8N998 (Q8N998) Hypothetical protein FLJ38159	Q8N998	43781.59	7.01E-03
143	Q8N9S2 (Q8N9S2) Hypothetical protein FLJ36635	Q8N9S2	28973.04	5.25E-03
144	Q8NAJ6 (Q8NAJ6) Hypothetical protein FLJ35251	Q8NAJ6	81745.5	1.24E-03
145	Q8NCU4 (Q8NCU4) Hypothetical protein	Q8NCU4	110499	9.83E-03
146	Q8NDA2 (Q8NDA2) Hypothetical protein DKFZp434P0216 (Fragment)	Q8NDA2	143799.3	7.52E-04
147	Q8TAN9 (Q8TAN9) Oxoglutarate dehydrogenase-like	Q8TAN9	114423.7	6.91E-03
148	Q8TBB5 (Q8TBB5) Kelch domain containing 4	Q8TBB5	57855.43	1.01E-03
149	Q8TBZ0 (Q8TBZ0) Hypothetical protein KM-HN-1	Q8TBZ0	96664.98	6.67E-04
150	Q8TC05 (Q8TC05) Mdm4, transformed 3T3 cell double minute 1, p53 binding protein	Q8TC05	80695.09	5.19E-03
151	CHD6_HUMAN (Q8TD26) Chromodomain-helicase-DNA-binding protein 6 (CHD-6) (R	Q8TD26	305218.9	6.52E-03
152	PAR3L_HUMAN (Q8TEW8) Amyotrophic lateral sclerosis 2 chromosome region candi	Q8TEW8	132412.5	9.52E-03
153	Q8WVY7 (Q8WVY7) Ubiquitin-like domain containing CTD phosphatase 1 (CTD-like p	Q8WVY7	36781.22	8.32E-04
154	ANKR7_HUMAN (Q92527) Ankyrin repeat domain protein 7 (Testis-specific protein	Q92527	22573.66	8.25E-03
155	Q92735 (Q92735) FMI protein	Q92735	161492.6	4.05E-03
156	SNPC3_HUMAN (Q92966) snRNA-activating protein complex subunit 3 (SNAPc subur	Q92966	46722.65	9.07E-03
157	IRF7_HUMAN (Q92985) Interferon regulatory factor 7 (IRF-7)	Q92985	54244.25	7.33E-04
158	Q96AG4 (Q96AG4) Hypothetical protein PRO1855	Q96AG4	34908.9	9.06E-03
159	ISG20_HUMAN (Q96AZ6) Interferon-stimulated gene 20 kDa protein (EC 3.1.13.1) (	Q96AZ6	20350.62	9.06E-05
160	GMCL1_HUMAN (Q96IK5) Germ cell-less protein-like 1	Q96IK5	58647.47	7.74E-03
161	KAD7_HUMAN (Q96M32) Putative adenylate kinase 7 (EC 2.7.4.3)	Q96M32	82620.65	9.64E-03
162	DB118_HUMAN (Q96PH6) Beta-defensin 118 precursor (Beta-defensin 18) (DEFB-18	Q96PH6	13604.79	5.68E-03
163	VPS35_HUMAN (Q96QK1) Vacuolar protein sorting 35 (Vesicle protein sorting 35)	Q96QK1	91649.07	4.26E-03
164	MAGI1_HUMAN (Q96QZ7) Membrane associated guanylate kinase, WW and PDZ do	Q96QZ7	164540.2	7.80E-03
165	MCCA_HUMAN (Q96RQ3) Methylcrotonoyl-CoA carboxylase alpha chain, mitochondri	Q96RQ3	80382.04	3.52E-03
166	NIBL_HUMAN (Q96TA1) Niban-like protein (Meg-3)	Q96TA1	82631.11	6.21E-03
167	SPS2_HUMAN (Q99611) Selenide, water dikinase 2 (EC 2.7.9.3) (Selenophosphate s)	Q99611	47227.85	2.61E-03
168	KIF2C_HUMAN (Q99661) Kinesin-like protein KIF2C (Mitotic centromere-associated	Q99661	81261.21	5.02E-03
169	CLP24_HUMAN (Q9BSN7) Claudin-like protein 24	Q9BSN7	24523.55	2.48E-03
170	DATF1_HUMAN (Q9BTC0) Death-associated transcription factor 1	Q9BTC0	129070.5	7.61E-03
171	CHST6_HUMAN (Q9GZX3) Carbohydrate sulfotransferase 6 (EC 2.8.2.—) (N-acetylglu	Q9GZX3	44071.2	5.32E-03
172	TNKS2_HUMAN (Q9H2K2) Tankyrase 2 (EC 2.4.2.30) (TANK2) (Tankyrase II) (TNKS	Q9H2K2	126838.5	1.90E-05
173	Q9H2M8 (Q9H2M8) DC28	Q9H2M8	64005.01	8.59E-03
174	SMRCD_HUMAN (Q9H4L7) SWI/SNF-related, matrix associated, actin-dependent reg	Q9H4L7	117299.9	7.44E-03
175	Q9H9B0 (Q9H9B0) Hypothetical protein FLJ12883	Q9H9B0	91169.25	9.96E-03
176	Q9H9B6 (Q9H9B6) Hypothetical protein FLJ12873	Q9H9B6	71307.3	4.63E-03
177	LPHN3_HUMAN (Q9HAR2) Latrophilin-3 precursor (Calcium-independent alpha-latrot	Q9HAR2	161709.3	9.90E-03
178	MAGE1_HUMAN (Q9HCI5) Melanoma-associated antigen E1 (MAGE-E1 antigen) (He	Q9HCI5	103189.7	6.56E-03
179	OLFL3_HUMAN (Q9NRN5) Olfactomedin-like protein 3 precursor (HNOEL-iso) (hOLF	Q9NRN5	45981.32	1.86E-03
180	TB22B_HUMAN (Q9NU19) TBC1 domain family member 22B	Q9NU19	59044.32	3.31E-03
181	CT038_HUMAN (Q9NUV7) Protein C20orf38	Q9NUV7	19679.8	7.71E-03
182	Q9NXE3 (Q9NXE3) Hypothetical protein FLJ20298	Q9NXE3	26243.39	8.80E-04
183	THUM1_HUMAN (Q9NXG2) THUMP domain containing protein 1	Q9NXG2	39290.82	7.48E-03
184	TE2IP_HUMAN (Q9NYB0) Telomeric repeat binding factor 2 interacting protein 1 (	Q9NYB0	44232.88	1.44E-03
185	ZN226_HUMAN (Q9NYT6) Zinc finger protein 226	Q9NYT6	91861.71	4.95E-03
186	GSCR1_HUMAN (Q9NZM4) Glioma tumor suppressor candidate region gene 1 protein	Q9NZM4	152898.4	6.54E-03
187	HCN3_HUMAN (Q9P1Z3) Potassium/sodium hyperpolarization-activated cyclic nucleo	Q9P1Z3	85977.23	5.36E-03
188	CEP72_HUMAN (Q9P209) Centrosomal protein of 72 kDa (Cep72 protein)	Q9P209	71673.01	1.96E-03

TABLE 9-continued

Vitreous proteins identified from patients with retinal detachment (RD)

	Protein	Accession	MW	P (pro)
189	CING_HUMAN (Q9P2M7) Cingulin	Q9P2M7	136303.7	5.06E-03
190	SL9A2_HUMAN (Q9UBY0) Sodium/hydrogen exchanger 2 (Na(+)/H(+) exchanger 2) (I	Q9UBY0	91461.34	6.23E-04
191	Q9UJU1 (Q9UJU1) Cytovillin 2 (Fragment)	Q9UJU1	16251.62	8.20E-03
192	STML2_HUMAN (Q9UJZ1) Stomatin-like protein 2 (SLP-2) (EPB72-like 2)	Q9UJZ1	38510.22	2.48E-03
193	MYH13_HUMAN (Q9UKX3) Myosin-13 (Myosin heavy chain, skeletal muscle, extraoc	Q9UKX3	223539.2	5.60E-03
194	TTC7A_HUMAN (Q9ULT0) Tetratricopeptide repeat protein 7A (TPR repeat protein 7	Q9ULT0	96123.27	6.23E-03
195	ALK_HUMAN (Q9UM73) ALK tyrosine kinase receptor precursor (EC 2.7.1.112) (Anap	Q9UM73	176304.4	9.57E-03
196	ICAM5_HUMAN (Q9UMF0) Intercellular adhesion molecule 5 precursor (ICAM-5) (Tel	Q9UMF0	97270.1	2.21E-03
197	SOX13_HUMAN (Q9UN79) SOX-13 protein (Type 1 diabetes autoantigen ICA12) (Isle	Q9UN79	98718.72	7.41E-03
198	CNTN6_HUMAN (Q9UQ52) Contactin 6 precursor (Neural recognition molecule NB-3)	Q9UQ52	113885.1	5.55E-03
199	NALDL_HUMAN (Q9UQQ1) N-acetylated-alpha-linked acidic dipeptidase-like protein	Q9UQQ1	80574.27	1.21E-03
200	CG141_HUMAN (Q9Y3E0) UPF0198 protein CGI-141	Q9Y3E0	15415.4	5.94E-05
201	ZN337_HUMAN (Q9Y3M9) Zinc finger protein 337	Q9Y3M9	86819.26	4.48E-03
202	TLN1_HUMAN (Q9Y490) Talin-1	Q9Y490	269596.3	3.76E-03
203	PCDGB_HUMAN (Q9Y5H2) Protocadherin gamma A11 precursor (PCDH-gamma-A1	Q9Y5H2	101480.6	9.51E-03
204	WIF1_HUMAN (Q9Y5W5) Wnt inhibitory factor 1 precursor (WIF-1)	Q9Y5W5	41499.8	5.15E-03
205	S12A7_HUMAN (Q9Y666) Solute carrier family 12 member 7 (Electroneutral potassiu	Q9Y666	119072.7	1.59E-04
206	SNCAP_HUMAN (Q9Y6H5) Synphilin-1 (Alpha-synuclein-interacting protein)	Q9Y6H5	100319	5.97E-03
413	DC13_HUMAN (Q9NRP2) UPF0287 protein DC13	Q9NRP2	9453.72	2.81E-03
414	Q9NS87 (Q9NS87) Kinesin-like protein 2	Q9NS87	160060.4	4.45E-03
415	Q9NSN6 (Q9NSN6) Hypothetical protein DKFZp761O0113	Q9NSN6	39970.1	6.56E-03
416	EMIL3_HUMAN (Q9NT22) EMILIN-3 precursor (EMILIN-5) (Elastin microfibril interf	Q9NT22	82595.73	3.69E-03
417	UGGG1_HUMAN (Q9NYU2) UDP-glucose:glycoprotein glucosyltransferase 1 precurs	Q9NYU2	174866.5	3.83E-03
418	T2R14_HUMAN (Q9NYV8) Taste receptor type 2 member 14 (T2R14) (Taste receptor	Q9NYV8	36136.48	1.33E-03
419	COMD9_HUMAN (Q9P000) COMM domain containing protein 9	Q9P000	21904.53	4.29E-04
420	VPS18_HUMAN (Q9P253) Vacuolar protein sorting 18 (hVPS18)	Q9P253	110115.9	7.01E-03
421	RRBP1_HUMAN (Q9P2E9) Ribosome-binding protein 1 (Ribosome receptor protein) (	Q9P2E9	152380	4.24E-03
422	SUCB1_HUMAN (Q9P2R7) Succinyl-CoA ligase [ADP-forming] beta-chain, mitochond	Q9P2R7	50299.33	8.47E-03
423	GT2D1_HUMAN (Q9UHL9) General transcription factor II-1 repeat domain-containin	Q9UHL9	105990.8	4.56E-03
424	Q9UI74 (Q9UI74) PRO0245	Q9UI74	8075.004	7.12E-04
425	SPB13_HUMAN (Q9UIV8) Serpin B13 (Hurpin) (HaCaT UV-repressible serpin) (Prote	Q9UIV8	44248.2	8.72E-04
426	HOOK1_HUMAN (Q9UJC3) Hook homolog 1 (h-hook1) (hHK1)	Q9UJC3	84594.84	9.77E-03
427	DKKL1_HUMAN (Q9UK85) Dickkopf-like protein 1 precursor (Soggy-1 protein) (SGY-1	Q9UK85	26990.23	1.36E-04
428	PADI3_HUMAN (Q9ULW8) Protein-arginine deiminase type III (EC 3.5.3.15) (Peptid	Q9ULW8	74695.37	9.91E-04
429	MLL4_HUMAN (Q9UMN6) Myeloid/lymphoid or mixed-lineage leukemia protein 4 (Trit	Q9UMN6	293327.3	9.43E-03
430	GPR34_HUMAN (Q9UPC5) Probable G-protein coupled receptor 34	Q9UPC5	43831.09	8.71E-03
431	Q9UQ10 (Q9UQ10) Dimeric dihydrodiol dehydrogenase (EC 1.3.1.20)	Q9UQ10	36358.77	9.73E-03
432	SHOC2_HUMAN (Q9UQ13) Leucine-rich repeat protein SHOC-2 (Ras-binding protein	Q9UQ13	64847.64	3.26E-03
433	AT11B_HUMAN (Q9Y2G3) Probable phospholipid-transporting ATPase IF (EC 3.6.3.1	Q9Y2G3	134104.1	9.84E-03
434	PCDG7_HUMAN (Q9Y5G6) Protocadherin gamma A7 precursor (PCDH-gamma-A7)	Q9Y5G6	101659.2	2.96E-03
435	PCDA2_HUMAN (Q9Y5H9) Protocadherin alpha 2 precursor (PCDH-alpha2)	Q9Y5H9	102000.4	6.26E-03
436	Q9Y5S5 (Q9Y5S5) DNA polymerase epsilon catalytic subunit protein isoform a	Q9Y5S5	262846.1	9.10E-03
437	SO1B1_HUMAN (Q9Y6L6) Solute carrier organic anion transporter family member 1B	Q9Y6L6	76398.98	1.51E-03

[0067]

TABLE 10

Vitreous proteins identified from patients with Macular Hole (MH)

	Protein	Accession	MW	P (pro)
207	Protein KIAA1683	Q9H0B3	127611.8	2.65E-04
208	Apolipoprotein A-IV precursor	P06727	45343.52	4.69E-12
209	KIAA0425 protein	O43308	141056.5	2.12E-04
210	MYH7B protein	Q96I57	114574.5	5.17E-04
211	Sortilin-related receptor precursor	Q92673	248280	2.94E-04
212	Ig kappa chain V-II region	P01614	12668.32	4.45E-07
213	Ig kappa chain V-II region MIL	P01616	12048.05	4.45E-07
214	Piccolo protein (Aczonin)	Q9Y6V0	566313.1	4.86E-04
215	Alpha-1B-glycoprotein precursor	P04217	54238.7	1.32E-09
216	Neuronal membrane glycoprotein M6-a	P51674	31188.39	4.39E-03
217	Nuclear pore complex protein Nup153	P49790	153793.4	5.51E-03
218	Secreted frizzled-related protein 3 precursor	Q92765	36230.29	5.30E-06
219	A-kinase anchor protein 3	O75969	94676.41	2.47E-05
220	Telomeric repeat binding factor 1	P54274	50313.11	2.43E-03
221	Kinesin-like protein KIF1A	Q12756	190963.1	3.48E-03
222	UDP-N-acetylhexosamine pyrophosphorylase	Q16222	58731.98	2.88E-03

TABLE 10-continued

Vitreous proteins identified from patients with Macular Hole (MH)

	Protein	Accession	MW	P (pro)
223	RIF1_HUMAN (Q5UIP0) Telomere-associated protein RIF1 (Rap1-interacting factor	Q5UIP0	274293	2.56E-03
224	Q6P4H8 (Q6P4H8) Hypothetical protein LOC134145	Q6P4H8	26123.47	3.97E-03
225	Q8IV47 (Q8IV47) Fibromodulin,	Q8IV47	43151.57	6.22E-04
226	Q8N9V7 (Q8N9V7) Hypothetical protein FLJ36157	Q8N9V7	77526.28	6.30E-04
227	LIPB2_HUMAN (Q8ND30) Liprin-beta 2 (Protein tyrosine phosphatase receptor type	Q8ND30	98383.37	3.34E-03
228	SYNE1_HUMAN (Q8NF91) Nesprin-1 (Nuclear envelope spectrin repeat protein 1) (Sy	Q8NF91	1010433	1.60E-03
229	K1849_HUMAN (Q96JH8) Protein KIAA1849	Q96JH8	116630	6.35E-03
230	GGA2_HUMAN (Q9UJY4) ADP-ribosylation factor binding protein GGA2 (Golgi-locali	Q9UJY4	67133.75	3.44E-03
231	Q9ULH9 (Q9ULH9) KIAA1241 protein (Fragment)	Q9ULH9	97158.45	1.73E-05
232	CT004_HUMAN (Q9Y312) Protein C20orf4	Q9Y312	43444.13	5.11E-03
233	KIF3A_HUMAN (Q9Y496) Kinesin-like protein KIF3A (Microtubule plus end-directed	Q9Y496	80335.11	8.14E-04
234	CAC1G_HUMAN (O43497) Voltage-dependent T-type calcium channel alpha-1G subu	O43497	262301.1	2.51E-03
235	GLU2B_HUMAN (P14314) Glucosidase II beta subunit precursor (Protein kinase C s	P14314	59258.88	1.97E-03
236	HBG1_HUMAN (P69891) Hemoglobin gamma-1 subunit (Hemoglobin gamma-1 chain	P69891	15999.27	8.59E-03
237	APXL_HUMAN (Q13796) Apical-like protein (APXL protein)	Q13796	176302	1.55E-03
238	UBP10_HUMAN (Q14694) Ubiquitin carboxyl-terminal hydrolase 10 (EC 3.1.2.15) (U	Q14694	87079.84	1.05E-03
239	Q15394 (Q15394) KIAA0005 protein (Fragment)	Q15394	48615.16	6.56E-04
240	Q4V9L7 (Q4V9L7) NGRN protein (Fragment)	Q4V9L7	31332.13	4.36E-03
241	Q53SW1 (Q53SW1) Hypothetical protein FLJ20254	Q53SW1	48539.34	2.53E-03
242	Q5BLQ2 (Q5BLQ2) Mucin	Q5BLQ2	289658.2	5.22E-03
243	Q5JRC3 (Q5JRC3) RPEL repeat containing 1 (Fragment)	Q5JRC3	25543.2	4.33E-03
244	Q5T2J8 (Q5T2J8) OTTHUMP00000018139 (Fragment)	Q5T2J8	97147.08	1.44E-03
245	Q65ZC8 (Q65ZC8) Single-chain Fv (Fragment)	Q65ZC8	26110.55	3.05E-05
246	VPS36_HUMAN (Q86VN1) Vacuolar protein sorting protein 36 (ELL-associated protei	Q86VN1	43788.79	1.09E-03
247	RYR2_HUMAN (Q92736) Ryanodine receptor 2 (Cardiac muscle-type ryanodine recep	Q92736	564136.1	6.98E-03
248	TOP1M_HUMAN (Q969P6) DNA topoisomerase I, mitochondrial precursor (EC 5.99.1.	Q969P6	69828.34	5.03E-03
249	Q96EK0 (Q96EK0) Hypothetical protein MGC4655	Q96EK0	41865.86	1.44E-03
250	Q9BRQ8 (Q9BRQ8) Apoptosis-inducing factor (AIF)-like mitchondrion-associated i	Q9BRQ8	40501.28	2.48E-03
251	Q9BS34 (Q9BS34) Zinc finger protein 670 (Hypothetical protein FLJ90293) (Novel	Q9BS34	44574.27	7.16E-03
252	PLEA5_HUMAN (Q9HAU0) Pleckstrin homology domain-containing protein family A m	Q9HAU0	127384.5	3.50E-03
253	Q5VXU2 (QSVXU2) Propionyl Coenzyme A carboxylase, alpha polypeptide	Q5VXU2	80235.37	1.34E-04
254	SGK1_HUMAN (O00141) Serine/threonine-protein kinase Sgk1 (EC 2.7.1.37) (Serum/	O00141	48925.35	1.08E-03
255	O14913 (O14913) Kruppel-associated box protein	O14913	52045.66	2.39E-03
256	HAT1_HUMAN (O14929) Histone acetyltransferase type B catalytic subunit (EC 2.3.	O14929	49480.84	1.43E-03
257	O15014 (O15014) KIAA0295 protein (Fragment)	O15014	106382.5	2.79E-03
258	PDZK3_HUMAN (O15018) PDZ domain containing protein 3 (PDZ domain containing I	O15018	301423.4	2.91E-03
259	DMN_HUMAN (O15061) Desmuslin	O15061	172662.5	2.87E-03
260	SOX12_HUMAN (O15370) SOX-12 protein (SOX-22 protein)	O15370	34279.67	1.92E-03
261	O43719 (O43719) HIV TAT specific factor 1	O43719	85800.38	2.48E-03
262	KPRB_HUMAN (O60256) Phosphoribosyl pyrophosphate synthetase-associated protei	O60256	40899.39	3.63E-05
263	LSD1_HUMAN (O60341) Lysine-specific histone demethylase 1 (EC 1.—.—.—) (Amine	O60341	92844.88	2.99E-04
264	FZD6_HUMAN (O60353) Frizzled 6 precursor (Frizzled-6) (Fz-6) (hFz6)	O60353	79222.06	1.13E-03
265	O60826 (O60826) JM1 protein (Hypothetical protein CCDC22)	O60826	70712.32	2.74E-03
266	GAS7_HUMAN (O60861) Growth-arrest-specific protein 7 (GAS-7)	O60861	47236.75	3.84E-04
267	O75179 (O75179) KIAA0697 protein (Fragment)	O75179	263079.2	1.34E-03
268	PRPU_HUMAN (O94906) U5 snRNP-associated 102 kDa protein (U5-102 kDa protein	O94906	106857.9	8.74E-03
269	SLIK3_HUMAN (O94933) SLIT and NTRK-like protein 3 precursor	O94933	108937.1	9.29E-03
270	O95285 (O95285) Erythroblast macrophage protein EMP	O95285	43879.31	8.16E-03
271	FMNL_HUMAN (O95466) Formin-like 1 protein (Formin-like protein) (Leukocyte for	O95466	121750.9	9.19E-03
272	HPT_HUMAN (P00738) Haptoglobin precursor [Contains: Haptoglobin alpha chain; H	P00738	45176.59	2.71E-05
273	KV2B_HUMAN (P01615) Ig kappa chain V-II region FR	P01615	12651.75	5.81E-04
274	CO3A1_HUMAN (P02461) Collagen alpha 1(III) chain precursor	P02461	138470.2	4.25E-03
275	FIBG_HUMAN (P02679) Fibrinogen gamma chain precursor	P02679	51478.88	1.61E-04
276	CRP_HUMAN (P02741) C-reactive protein precursor [Contains: C-reactive protein(	P02741	25022.68	9.82E-03
277	AMBP_HUMAN (P02760) AMBP protein precursor [Contains: Alpha-1-microglobulin (P	P02760	38973.99	1.37E-04
278	CSF1R_HUMAN (P07333) Macrophage colony-stimulating factor 1 receptor precursor	P07333	107915.2	8.66E-03
279	RET_HUMAN (P07949) Proto-oncogene tyrosine-protein kinase receptor ret precurs	P07949	124239.4	4.41E-03
280	RARA_HUMAN (P10276) Retinoic acid receptor alpha (RAR-alpha)	P10276	50738.42	5.40E-04
281	C1TC_HUMAN (P11586) C-1-tetrahydrofolate synthase, cytoplasmic (C1-THF synthas	P11586	101364.5	2.60E-03
282	CSPG2_HUMAN (P13611) Versican core protein precursor (Large fibroblast proteog	P13611	372589	7.15E-06
283	K1C13_HUMAN (P13646) Keratin, type I cytoskeletal 13 (Cytokeratin-13) (CK-13)	P13646	49555.45	4.22E-03
284	NEBU_HUMAN (P20929) Nebulin	P20929	772742.8	7.84E-04
285	PRDX2_HUMAN (P32119) Peroxiredoxin 2 (EC 1.11.1.15) (Thioredoxin peroxidase 1)	P32119	21747.2	9.46E-03
286	MYH11_HUMAN (P35749) Myosin-11 (Myosin heavy chain, smooth muscle isoform) (	P35749	227197.9	2.94E-03
287	BRCA1_HUMAN (P38398) Breast cancer type 1 susceptibility protein (RING finger	P38398	207590.9	9.37E-03
288	RL13A_HUMAN (P40429) 60S ribosomal protein L13a (23 kDa highly basic protein)	P40429	23431.35	9.48E-03
289	STAT1_HUMAN (P42224) Signal transducer and activator of transcription 1-alpha/	P42224	87279.63	7.68E-03
290	RHG25_HUMAN (P42331) Rho-GTPase-activating protein 25	P42331	72385.19	8.14E-03
291	AFAM_HUMAN (P43652) Afamin precursor (Alpha-albumin) (Alpha-Alb)	P43652	69024.09	8.12E-05
292	RBP2_HUMAN (P49792) Ran-binding protein 2 (RanBP2) (Nuclear pore complex prot	P49792	357991.4	3.16E-03
293	DPOG1_HUMAN (P54098) DNA polymerase gamma subunit 1 (EC 2.7.7.7) (Mitochon	P54098	139473.4	3.35E-03
294	ELL_HUMAN (P55199) RNA polymerase II elongation factor ELL (Eleven-nineteen ly	P55199	68222.91	5.19E-03

TABLE 10-continued

Vitreous proteins identified from patients with Macular Hole (MH)

	Protein	Accession	MW	P (pro)
295	CAD12_HUMAN (P55289) Brain-cadherin precursor (BR-cadherin) (Cadherin-12) (N-c	P55289	88219.76	1.52E-03
296	KR102_HUMAN (P60368) Keratin-associated protein 10-2 (Keratin-associated prote	P60368	25595.75	1.72E-03
297	RT21_HUMAN (P82921) Mitochondrial 28S ribosomal protein S21 (S21mt) (MRP-S21	P82921	10734.48	2.34E-03
298	NSBP1_HUMAN (P82970) Nucleosomal binding protein 1	P82970	31505.95	1.93E-03
299	SCN7A_HUMAN (Q01118) Sodium channel protein type VII alpha subunit (Putative v	Q01118	193345	1.66E-03
300	BDH_HUMAN (Q02338) D-beta-hydroxybutyrate dehydrogenase, mitochondrial precur	Q02338	38132.47	5.68E-03
301	CK013_HUMAN (Q02833) Protein C11orf13 (HRAS1-related cluster protein 1)	Q02833	39920.6	3.17E-03
302	BPA1_HUMAN (Q03001) Bullous pemphigoid antigen 1 isoforms 1/2/3/4/5/8 (230 kDa	Q03001	371976.9	7.39E-03
303	ATP7A_HUMAN (Q04656) Copper-transporting ATPase 1 (EC 3.6.3.4) (Copper pump	Q04656	163230	3.35E-03
304	APLP2_HUMAN (Q06481) Amyloid-like protein 2 precursor (Amyloid protein homolog	Q06481	86900.28	1.03E-09
305	TRDN_HUMAN (Q13061) Triadin	Q13061	81374.51	6.20E-03
306	CSN1_HUMAN (Q13098) COP9 signalosome complex subunit 1 (Signalosome subuni	Q13098	53338.1	7.31E-03
307	NOG2_HUMAN (Q13823) Nucleolar GTP-binding protein 2 (Autoantigen NGP-1)	Q13823	83603.43	9.59E-03
308	Q14159 (Q14159) KIAA0146 protein (Fragment)	Q14159	100592.3	1.44E-03
309	BMS1_HUMAN (Q14692) Ribosome biogenesis protein BMS1 homolog	Q14692	145715.5	3.76E-03
310	2A5D_HUMAN (Q14738) Serine/threonine protein phosphatase 2A, 56 kDa regulatory	Q14738	69947.5	2.98E-03
311	RBBP5_HUMAN (Q15291) Retinoblastoma-binding protein 5 (RBBP-5) (Retinoblastorr	Q15291	59044.69	9.99E-03
312	CDC37_HUMAN (Q16543) Hsp90 co-chaperone Cdc37 (Hsp90 chaperone protein kin	Q16543	44440.05	8.92E-03
313	Q49AA0 (Q49AA0) ZNF642 protein	Q49AA0	61112.29	5.50E-03
314	Q4VC44 (Q4VC44) FLYWCH-type zinc finger 1, isoform a	Q4VC44	79985.74	1.11E-03
315	Q4VXM4 (Q4VXM4) Chromosome 20 open reading frame 17	Q4VXM4	114932.5	2.21E-03
316	Q53EU6 (Q53EU6) Hypothetical protein (Fragment)	Q53EU6	48673.52	9.80E-04
317	Q53RG2 (Q53RG2) Hypothetical protein CHRNG	Q53RG2	58259.47	4.34E-03
318	Q562E5 (Q562E5) KIAA0194 protein (Fragment)	Q562E5	157553.1	3.73E-04
319	Q59FI9 (Q59FI9) Ribosomal protein L12 variant (Fragment)	Q59FI9	21469.49	6.72E-03
320	Q5JPU1 (Q5JPU1) Pyruvate dehydrogenase (Lipoamide) alpha 1 (Fragment)	Q5JPU1	22743.74	3.07E-03
321	Q5JTH6 (Q5JTH6) Exosomal core protein CSL4	Q5JTH6	18804.54	5.99E-04
322	Q5JX69 (Q5JX69) OTTHUMP00000031352	Q5JX69	19485.96	8.08E-03
323	Q5T1J6 (Q5T1J6) OTTHUMP00000030508	Q5T1J6	17161.46	4.35E-03
324	Q5TDG2 (Q5TDG2) Hydroxy-delta-5-steroid dehydrogenase, 3 beta-and steroid delt	Q5TDG2	42427.11	2.32E-03
325	Q5TYW1 (Q5TYW1) Novel protein (Fragment)	Q5TYW1	97254.69	4.42E-03
326	Q5VXI2 (Q5VXI2) Myosin IIIA	Q5VXI2	22191.69	7.99E-03
327	Q5VYM8 (Q5VYM8) Unc-13 homolog B (*C. elegans*)	Q5VYM8	180563.2	2.31E-03
328	Q5XPV5 (Q5XPV5) Sjogren syndrome antigen A1	Q5XPV5	54089.2	5.68E-04
329	Q63HP7 (Q63HP7) Hypothetical protein DKFZp686P1551	Q63HP7	65621.97	5.39E-03
330	Q659F3 (Q659F3) Hypothetical protein DKFZp434J194	Q659F3	14956.27	4.86E-03
331	CEP4_HUMAN (Q66GS9) Centrosomal protein 4 (Centrosomal protein of 135 kDa) (C	Q66GS9	133421.9	9.02E-04
332	Q68CI8 (Q68CI8) Hypothetical protein HMFT1272 (Fragment)	Q68CI8	48598.88	2.38E-03
333	Q68DL8 (Q68DL8) Hypothetical protein DKFZp781L0319	Q68DL8	84645.59	3.98E-03
334	S6A19_HUMAN (Q695T7) Sodium-dependent neutral amino acid transporter B(0) (Sys	Q695T7	71063.29	5.44E-03
335	Q6A334 (Q6A334) Mutated in bladder cancer 1	Q6A334	61882.69	8.74E-03
336	Q6IA31 (Q6IA31) FLJ14154 protein	Q6IA31	27415.97	7.48E-03
337	Q6IBW4 (Q6IBW4) Em: U62317.2 protein	Q6IBW4	68183.7	6.70E-03
338	Q6IE81 (Q6IE81) JADE1L protein	Q6IE81	95472.82	9.07E-03
339	Q6IF05 (Q6IF05) Olfactory receptor OR1-47	Q6IF05	37737.82	8.84E-04
340	ST6B1_HUMAN (Q6IMI4) Sulfotransferase 6B1 (EC 2.8.2.—)	Q6IMI4	30491.21	9.60E-03
341	PTRF_HUMAN (Q6NZI2) Polymerase I and transcript release factor (PTRF protein)	Q6NZI2	43449.88	1.14E-03
342	Q6P3W7 (Q6P3W7) Similar to mouse D10Ertd802e protein	Q6P3W7	103642.4	9.06E-04
343	Q6P658 (Q6P658) FNBP1 protein (Fragment)	Q6P658	40759.38	6.14E-04
344	GP133_HUMAN (Q6QNK2) Probable G-protein coupled receptor 133 precursor (G-prc	Q6QNK2	96468.2	7.32E-03
345	Q6UXX5 (Q6UXX5) ITI-like protein (Inter-alpha (Globulin) inhibitor H5-like)	Q6UXX5	143097.8	6.30E-03
346	Q6ZMV7 (Q6ZMV7) Hypothetical protein FLJ16641	Q6ZMV7	45118.72	5.36E-03
347	Q6ZMX7 (Q6ZMX7) Hypothetical protein FLJ16607	Q6ZMX7	147809.7	1.23E-03
348	Q6ZQN2 (Q6ZQN2) Hypothetical protein FLJ46846	Q6ZQN2	180573.9	2.18E-03
349	Q6ZVL2 (Q6ZVL2) Hypothetical protein FLJ42427	Q6ZVL2	15702.14	7.92E-03
350	Q6ZW87 (Q6ZW87) Hypothetical protein FLJ41443	Q6ZW87	24773.63	5.09E-03
351	Q7KYS7 (Q7KYS7) Hypothetical protein (Fragment)	Q7KYS7	31128.16	1.53E-03
352	Q7RTS7 (Q7RTS7) Keratin 5c	Q7RTS7	59333.45	4.83E-03
353	CA036_HUMAN (Q7Z3Z2) Protein C1orf36	Q7Z3Z2	22689.57	1.27E-04
354	Q7Z736 (Q7Z736) Hypothetical protein FLJ21019	Q7Z736	85273.38	7.52E-03
355	Q86VJ1 (Q86VJ1) E3 ligase for inhibin receptor	Q86VJ1	289427.4	9.51E-03
356	Q86Y22 (Q86Y22) Alpha 1 type XXIII collagen	Q86Y22	51912.29	3.71E-03
357	Q8IUA7 (Q8IUA7) ATP-binding cassette sub-family A member 9	Q8IUA7	184241.6	5.35E-03
358	Q8IUG8 (Q8IUG8) Carnitine transporter 2	Q8IUG8	60830.3	6.69E-03
359	Q8IUS2 (Q8IUS2) LOC339483 protein	Q8IUS2	2870.257	3.48E-03
360	Q8IZA4 (Q8IZA4) ELYS transcription factor-like protein TMBS62	Q8IZA4	256022.6	5.66E-03
361	ASPM_HUMAN (Q8IZT6) Abnormal spindle-like microcephaly-associated protein (Abn	Q8IZT6	409539.8	4.72E-03
362	Q8N1G4 (Q8N1G4) Hypothetical protein LRRC47 (Novel protein)	Q8N1G4	63433.89	2.19E-03
363	Q8N401 (Q8N401) KIAA1632 protein	Q8N401	52340.19	8.67E-03
364	DCAK2_HUMAN (Q8N568) Serine/threonine-protein kinase DCAMKL2 (EC 2.7.1.37) (	Q8N568	83587.57	4.26E-03
365	Q8N5E0 (Q8N5E0) Apoptosis-inducing factor like, isoform 2	Q8N5E0	65924.3	5.12E-03
366	Q8NC99 (Q8NC99) Hypothetical protein FLJ90396	Q8NC99	66758.55	5.35E-03

TABLE 10-continued

Vitreous proteins identified from patients with Macular Hole (MH)

	Protein	Accession	MW	P (pro)
367	Q8NF06 (Q8NF06) FLJ00398 protein (Fragment)	Q8NF06	72000.41	1.78E-04
368	Q8NFY8 (Q8NFY8) Neuroblastoma-amplified protein	Q8NFY8	268295.4	1.13E-03
369	O10A7_HUMAN (Q8NGE5) Olfactory receptor 10A7	Q8NGE5	35670.34	8.56E-03
370	Q8NH29 (Q8NH29) Seven transmembrane helix receptor	Q8NH29	25373.85	1.70E-04
371	IL17D_HUMAN (Q8TAD2) Interleukin-17D precursor (IL-17D) (Interleukin-27) (IL-2	Q8TAD2	21879.14	6.37E-03
372	Q8TCE1 (Q8TCE1) SERPINC1 protein	Q8TCE1	29073.79	2.30E-05
373	Q8TCJ2 (Q8TCJ2) Source of immunodominant MHC-associated peptides	Q8TCJ2	93613.76	3.14E-04
374	DDX54_HUMAN (Q8TDD1) DEAD-box protein 54 (EC 3.6.1.—) (ATP-dependent RNA h	Q8TDD1	98534.24	1.74E-03
375	Q92772 (Q92772) P56 KKIAMRE protein kinase (Cyclin-dependent kinase-like 2)	Q92772	55982.93	6.77E-03
376	COR2A_HUMAN (Q92828) Coronin-2A (WD repeat-containing protein 2) (IR10)	Q92828	59725.43	3.04E-03
377	Q96E20 (Q96E20) CD99L2 protein (Hypothetical protein) (Fragment)	Q96E20	16612.17	3.63E-03
378	Q96IV6 (Q96IV6) C5orf4 protein	Q96IV6	38976.07	4.48E-03
379	RSRC1_HUMAN (Q96IZ7) Arginine/serine-rich coiled coil protein 1	Q96IZ7	38654.46	8.17E-03
380	KCNH8_HUMAN (Q96L42) Potassium voltage-gated channel subfamily H member 8 (	Q96L42	123754.3	3.90E-04
381	Q96MP4 (Q96MP4) Hypothetical protein FLJ32091	Q96MP4	81413.94	6.67E-03
382	Q96NI8 (Q96NI8) Hypothetical protein FLJ30791	Q96NI8	62289.69	4.72E-03
383	ZN285_HUMAN (Q96NJ3) Zinc finger protein 285	Q96NJ3	50009.57	2.66E-03
384	INP4A_HUMAN (Q96PE3) Type I inositol-3,4-bisphosphate 4-phosphatase (EC 3.1.3.	Q96PE3	109885.5	2.98E-04
385	UHRF2_HUMAN (Q96PU4) Ubiquitin-like containing PHD and RING finger domains pr	Q96PU4	89927.86	6.47E-03
386	Q96QE0 (Q96QE0) Hypothetical protein DL8Q12	Q96QE0	23959.2	3.39E-03
387	PANX2_HUMAN (Q96RD6) Pannexin-2	Q96RD6	69434.98	7.29E-03
388	Q96RF2 (Q96RF2) WWOXdelta5-8	Q96RF2	35019.5	3.55E-03
389	LYST_HUMAN (Q99698) Lysosomal trafficking regulator (Beige homolog)	Q99698	428865.6	7.47E-03
390	SMO_HUMAN (Q99835) Smoothened homolog precursor (SMO) (Gx protein)	Q99835	86341.18	7.04E-05
391	Q99993 (Q99993) WUGSC:H_2G3A.1 protein	Q99993	60051.64	4.36E-03
392	OSR10_HUMAN (Q9BXB5) Oxysterol binding protein-related protein 10 (OSBP-related	Q9BXB5	83917.38	7.10E-03
393	EMR3_HUMAN (Q9BY15) EGF-like module containing mucin-like hormone receptor-li	Q9BY15	72545.69	6.97E-03
394	Q9BYJ0 (Q9BYJ0) Ksp37 (HBp17-related protein)	Q9BYJ0	24565.15	6.42E-04
395	OSR7_HUMAN (Q9BZF2) Oxysterol binding protein-related protein 7 (OSBP-related	Q9BZF2	95371.7	3.33E-04
396	Q9BZH2 (Q9BZH2) False p73 target protein	Q9BZH2	53043.29	2.66E-03
397	PHAR1_HUMAN (Q9C0D0) Phosphatase and actin regulator 1	Q9C0D0	54573.55	2.72E-04
398	Q9C0D4 (Q9C0D4) KIAA1729 protein (Fragment)	Q9C0D4	113646.6	1.84E-03
399	DDX24_HUMAN (Q9GZR7) ATP-dependent RNA helicase DDX24 (DEAD-box protein	Q9GZR7	96271.52	7.26E-03
400	Q9GZT6 (Q9GZT6) MDS011 (Hypothetical protein MDS025)	Q9GZT6	29453.17	4.53E-03
401	Q9H0J7 (Q9H0J7) Hypothetical protein DKFZp434F0116	Q9H0J7	53323.07	2.81E-04
402	GHITM_HUMAN (Q9H3K2) Growth hormone inducible transmembrane protein (Derm	Q9H3K2	37180.59	4.28E-03
403	Q9H3M9 (Q9H3M9) Homo sapiens (Fragment)	Q9H3M9	39581.41	5.36E-03
404	RANB3_HUMAN (Q9H6Z4) Ran-binding protein 3 (RanBP3)	Q9H6Z4	60173.32	3.82E-03
405	SMYD3_HUMAN (Q9H7B4) SET and MYND domain-containing protein 3 (EC 2.1.1.43	Q9H7B4	49050.59	5.56E-03
406	Q9H7C4 (Q9H7C4) Hypothetical protein FLJ21054	Q9H7C4	17715.02	8.68E-03
407	COG4_HUMAN (Q9H9E3) Conserved oligomeric Golgi complex component 4	Q9H9E3	89038.48	9.55E-03
408	UBP29_HUMAN (Q9HBJ7) Ubiquitin carboxyl-terminal hydrolase 29 (EC 3.1.2.15) (U	Q9HBJ7	104090.1	1.22E-03
409	Q9HBY0 (Q9HBY0) Putative superoxide-generating NADPH oxidase Mox2 (NADPH o	Q9HBY0	64893.13	4.96E-03
410	SYTL2_HUMAN (Q9HCH5) Synaptotagmin-like protein 2 (Exophilin-4)	Q9HCH5	100734.4	8.61E-04
411	Q9NR16 (Q9NR16) Scavenger receptor cysteine-rich type 1 protein M160 precursor	Q9NR16	159159.5	6.17E-03
412	SPTN5_HUMAN (Q9NRC6) Spectrin beta chain, brain 4 (Spectrin, non-erythroid beta	Q9NRC6	416577.2	3.96E-04
413	DC13_HUMAN (Q9NRP2) UPF0287 protein DC13	Q9NRP2	9453.72	2.81E-03
414	Q9NS87 (Q9NS87) Kinesin-like protein 2	Q9NS87	160060.4	4.45E-03
415	Q9NSN6 (Q9NSN6) Hypothetical protein DKFZp761O0113	Q9NSN6	39970.1	6.56E-03
416	EMIL3_HUMAN (Q9NT22) EMILIN-3 precursor (EMILIN-5) (Elastin microfibril interf	Q9NT22	82595.73	3.69E-03
417	UGGG1_HUMAN (Q9NYU2) UDP-glucose:glycoprotein glucosyltransferase 1 precurs	Q9NYU2	174866.5	3.83E-03
418	T2R14_HUMAN (Q9NYV8) Taste receptor type 2 member 14 (T2R14) (Taste receptor	Q9NYV8	36136.48	1.33E-03
419	COMD9_HUMAN (Q9P000) COMM domain containing protein	Q9P000	21904.53	4.29E-04
420	VPS18_HUMAN (Q9P253) Vacuolar protein sorting 18 (hVPS18)	Q9P253	110115.9	7.01E-03
421	RRBP1_HUMAN (Q9P2E9) Ribosome-binding protein 1 (Ribosome receptor protein) (	Q9P2E9	152380	4.24E-03
422	SUCB1_HUMAN (Q9P2R7) Succinyl-CoA ligase [ADP-forming] beta-chain, mitochond	Q9P2R7	50299.33	8.47E-03
423	GT2D1_HUMAN (Q9UHL9) General transcription factor II-I repeat domain-containin	Q9UHL9	105990.8	4.56E-03
424	Q9UI74 (Q9UI74) PRO0245	Q9UI74	8075.004	7.12E-04
425	SPB13_HUMAN (Q9UIV8) Serpin B13 (Hurpin) (HaCaT UV-repressible serpin) (Protea	Q9UIV8	44248.2	8.72E-04
426	HOOK1_HUMAN (Q9UJC3) Hook homolog 1 (h-hook1) (hHK1)	Q9UJC3	84594.84	9.77E-03
427	DKKL1_HUMAN (Q9UK85) Dickkopf-like protein 1 precursor (Soggy-1 protein) (SGY-1	Q9UK85	26990.23	1.36E-04
428	PADI3_HUMAN (Q9ULW8) Protein-arginine deiminase type III (EC 3.5.3.15) (Peptid	Q9ULW8	74695.37	9.91E-04
429	MLL4_HUMAN (Q9UMN6) Myeloid/lymphoid or mixed-lineage leukemia protein 4 (Trit	Q9UMN6	293327.3	9.43E-03
430	GPR34_HUMAN (Q9UPC5) Probable G-protein coupled receptor 34	Q9UPC5	43831.09	8.71E-03
431	Q9UQ10 (Q9UQ10) Dimeric dihydrodiol dehydrogenase (EC 1.3.1.20)	Q9UQ10	36358.77	9.73E-03
432	SHOC2_HUMAN (Q9UQ13) Leucine-rich repeat protein SHOC-2 (Ras-binding protein	Q9UQ13	64847.64	3.26E-03
433	AT11B_HUMAN (Q9Y2G3) Probable phospholipid-transporting ATPase IF (EC 3.6.3.1	Q9Y2G3	134104.1	9.84E-03
434	PCDG7_HUMAN (Q9Y5G6) Protocadherin gamma A7 precursor (PCDH-gamma-A7)	Q9Y5G6	101659.2	2.96E-03
435	PCDA2_HUMAN (Q9Y5H9) Protocadherin alpha 2 precursor (PCDH-alpha2)	Q9Y5H9	102000.4	6.26E-03
436	Q9Y5S5 (Q9Y5S5) DNA polymerase epsilon catalytic subunit protein isoform a	Q9Y5S5	262846.1	9.10E-03
437	SO1B1_HUMAN (Q9Y6L6) Solute carrier organic anion transporter family member 1B	Q9Y6L6	76398.98	1.51E-03

[0068]

TABLE 11

Vitreous proteins identified from patients with retinal detachment (RD) & Macular Hole (MH)

438	Serotransferrin precursor	P02787	76999.66	4.22E-14
439	Serum albumin precursor	P02768	69321.63	1.00E-30
440	Hypothetical protein	Q569I7	20655.36	1.27E-07
441	Transthyretin precursor	P02766	15877.05	1.00E-30
442	Interphotoreceptor retinoid-binding protein precursor	P10745	135277.8	1.00E-30
443	Keratin, type II cytoskeletal 1	P04264	65846.88	9.37E-12
444	Clusterin precursor	P10909	52461.05	3.33E-12
445	Alpha-1-acid glycoprotein 1 precursor	P02763	23496.77	5.78E-12
446	PH domain containing protein	Q8TD55	53317.19	3.94E-05
447	Ig gamma-1 chain C region	P01857	36083.16	4.94E-13
448	Apolipoprotein A-I precursor	P02647	30758.94	3.44E-14
449	Hemopexin precursor	P02790	51643.32	8.88E-15
450	Keratin, type I cytoskeletal 10	P13645	59482.76	1.51E-09
451	Transcription factor NF-E4	Q86UQ8	19006.73	1.59E-04
452	Apolipoprotein A-II precursor	P02652	11167.9	5.95E-12
453	Keratin 10	Q14664	57212.99	1.11E-15
454	Hemoglobin delta subunit	P02042	15914.25	1.78E-14
455	Pigment epithelium-derived factor precursor	P36955	46313.36	1.93E-10
456	Alpha-1-antitrypsin precursor	P01009	46707.09	8.88E-15
457	Alpha 2 globin variant	Q53F97	15270.94	1.89E-12
458	Hypothetical protein FLJ42076	Q6ZVU4	21036.72	8.88E-05
459	Nuclear receptor-interacting factor	Q8WY14	52754.03	1.57E-03
460	Keratin, type II cytoskeletal 1b	Q7Z794	61650.4	2.57E-06
461	Hypothetical protein FLJ40259	Q8N7W7	66086.88	1.29E-04
462	Keratin, type II cytoskeletal	P35908	65825.37	2.77E-09
463	Beta-globin gene from a thalassemia patient	Q14473	18918.59	2.17E-12
464	HNRBF-2	Q9H2I2	31787.43	5.30E-05
465	Dickkopf-related protein 3 precursor	Q9UBP4	38266.07	2.33E-08
466	Double-stranded RNA-binding protein	O95793	63227.92	1.39E-04
467	Complement C4-A precursor	P0C0L4	192649.5	4.22E-14
468	Hypothetical protein	Q6PHR9	9188.304	6.10E-04
469	Vacuolar protein sorting 13A	Q96RL7	360046.1	9.97E-04
470	Hypothetical protein DKFZp686I04196	Q6N093	46031.66	1.25E-11
471	Vitamin D-binding protein	Q6GTG1	52902.04	2.26E-10
472	KIAA1200 protein	Q9ULM0	155607.6	1.07E-03
473	Tumor necrosis factor	Q5VWH1	20099.21	1.04E-03
474	PML-RARA regulated adaptor molecule	Q8N6W7	73950.18	1.05E-03
475	Hypothetical protein DKFZp686J11235	Q6MZW0	54424.95	4.12E-10
476	Tuberin (Tuberous sclerosis 2 protein)	P49815	200621.4	7.82E-05
477	Kallikrein-14 precursor	Q9P0G3	27434.89	1.67E-04
478	K1C9_HUMAN (P35527) Keratin, type I cytoskeletal 9 (Cytokeratin-9) (CK-9) (Kera	P35527	62091.76	2.20E-12
479	IGKC protein	Q502W4	25919.92	1.11E-15
480	Zinc finger protein 185	O15231	49156.87	4.35E-03
481	IGLC2 protein	Q567P1	24784.13	1.61E-13
482	Receptor-type tyrosine protein phosphatase delta	P23468	214623.5	2.34E-03
483	ADAMTS-12 precursor	P58397	177429.5	2.30E-04
484	Complement C3 precursor	P01024	187045.3	5.42E-11
485	Adenylyl cyclase type V	Q7RTV7	39312.25	1.51E-04
486	Hypothetical protein TMEM55A	Q8N4L2	28062.26	3.73E-05
487	Cytochrome P450, family 20, subfamily A,	Q8WWA9	52460.08	2.11E-06
488	Ceruloplasmin precursor	P00450	122127.6	1.11E-12
489	Colony stimulating factor 2 receptor	Q4V312	46871.63	7.80E-05
490	Hypothetical protein FLJ35435	Q8NAF6	65308.66	1.80E-05
491	Hypothetical protein FAM33A	Q8WVK7	14179.33	1.51E-03
492	Alpha-2-macroglobulin precursor	P01023	163174.3	5.36E-09
493	RhoGTPase regulating protein variant	Q6RJU1	130153.4	5.25E-04
494	SGCE_HUMAN (O43556) Epsilon-sarcoglycan precursor (Epsilon-SG)	O43556	49722.25	2.18E-04
495	Intercellular adhesion molecule 3 precursor	P32942	59345.85	2.21E-03
496	Proto-oncogene tyrosine protein kinase	P07332	93412.31	4.63E-05
497	Calcium-independent phospholipase A2	Q9NP80	88421.11	2.83E-03
498	WD-repeat protein 9	Q9NSI6	257060.4	1.15E-03
499	Ig gamma-3 chain C region	P01860	32309.81	2.03E-09
500	Dystroglycan precursor	Q14118	97519.91	1.67E-03
501	LOC150763 protein	Q6NUI2	87507.18	7.57E-05
502	Osteopontin precursor	P10451	35401.25	5.20E-10
503	Q6ZTG8 (Q6ZTG8) Hypothetical protein FLJ44670	Q6ZTG8	115755	3.09E-03
504	Apolipoprotein E precursor	P02649	36131.79	3.48E-08
505	Novel protein	Q5T7N3	107275.7	1.60E-03
506	Hypothetical protein FLJ40243	Q7Z745	180566.4	1.50E-03
507	Hypothetical protein DKFZp434I138	Q659E3	78784.1	2.57E-04
508	Hypothetical protein FLJ43007	Q6ZV44	19332.49	1.02E-04
509	Protein C19orf10 precursor (Stromal cell-derived GF)	Q969H8	18783.32	2.10E-03

TABLE 11-continued

Vitreous proteins identified from patients with retinal detachment (RD) & Macular Hole (MH)

510	Q9NXK0 (Q9NXK0) Hypothetical protein FLJ20202	Q9NXK0	44899.86	1.52E−03
511	Basement membrane-specific heparan sulfate proteoglycan	P98160	468528.2	4.04E−04
512	O95978 (O95978) VH1 protein precursor (Fragment)	O95978	17292.5	1.17E−07
513	Alpha-2-HS-glycoprotein precursor	P02765	39299.73	1.29E−06
514	Cytochrome P450	P10635	55766.2	4.19E−04
515	Zinc finger protein 197	O14709	118770.8	4.48E−04
516	Q8N7Q3 (Q8N7Q3) Hypothetical protein FLJ40479	Q8N7Q3	45893.4	1.50E−03
517	Trichohyalin	Q07283	247074.4	2.97E−03
518	Hypothetical protein FLJ44832	Q6ZQT3	139335.1	2.50E−03
519	Hypothetical protein KIAA1505	Q8IYE0	112734.9	2.15E−03
520	G patch domain containing protein 3	Q96I76	59301.11	2.28E−03
521	ADAM 28 precursor	Q9UKQ2	87151.09	2.62E−04
522	Beta-2-glycoprotein I precursor	P02749	38272.67	3.39E−08
523	Alpha-internexin	Q16352	55357.48	6.89E−04
524	Q684R2 (Q684R2) Para-hydroxybenzoate-polyprenyltransferase, mitochondrial (EC	Q684R2	45578.79	3.25E−03
525	Q9Y2W9 (Q9Y2W9) Endocrine regulator	Q9Y2W9	231761.3	1.57E−04
526	G protein-activated inward rectifier potassium channel 1	P48549	56566.8	4.27E−04
527	Keratin, type I cytoskeletal 12	Q99456	53478.53	7.68E−06
528	Gelsolin precursor	P06396	85644.25	2.02E−04
529	TSP2_HUMAN (P35442) Thrombospondin-2 precursor	P35442	129871.5	3.33E−04
530	Transmembrane channel-like protein 7	Q7Z402	83447.49	2.53E−03
531	Protein KIAA1199 precursor	Q8WUJ3	152900	1.11E−03
532	Filamin-A	P21333	280583.4	1.64E−03
533	Prostaglandin-H2 D-isomerase	P41222	21015.35	3.34E−10
534	HSAL5836	Q6UWG9	9682.161	2.94E−03
535	Hypothetical protein gs80	Q96S02	25483.99	9.47E−04
536	AACT_HUMAN (P01011) Alpha-1-antichymotrypsin precursor (ACT) [Contains: Alpha-	P01011	47620.63	2.48E−04
537	MRP1_HUMAN (P33527) Multidrug resistance-associated protein 1 (ATP-binding cas	P33527	171450.5	1.77E−03
538	Keratin, type II cytoskeletal 2	Q01546	65830.09	4.77E−04
539	Maguin-like protein variant II	Q5SGD5	61848.88	1.71E−03
540	Q6PHR8 (Q6PHR8) Hypothetical protein (Fragment)	Q6PHR8	33452.8	2.10E−03
541	Q8NDD1 (Q8NDD1) Hypothetical protein DKFZp547B1713	Q8NDD1	32732.49	5.52E−03
542	Q9H6E6 (Q9H6E6) Hypothetical protein FLJ22346	Q9H6E6	81825.66	1.41E−03
543	Mitochondrial 28S ribosomal protein S2	Q9Y399	33228.08	5.60E−05
544	Supervillin	O95425	247550.6	5.54E−03
545	RETBP_HUMAN (P02753) Plasma retinol-binding protein precursor (PRBP) (RBP) [C	P02753	22995.26	1.36E−03
546	Ubiquitin conjugation factor E4	Q14139	122482	7.16E−05
547	Q9ULI2 (Q9ULI2) KIAA1238 protein (Fragment)	Q9ULI2	45141.04	2.40E−03
548	HYES_HUMAN (P34913) Epoxide hydrolase 2 (EC 3.3.2.3) (Soluble epoxide hydrolas	P34913	62574.77	4.29E−04
549	MYO7A_HUMAN (Q13402) Myosin-7A (Myosin VIIa)	Q13402	254242.5	8.23E−04
550	PCSK5_HUMAN (Q92824) Proprotein convertase subtilisin/kexin type 5 precursor (	Q92824	101708.3	2.56E−04
551	TR10A_HUMAN (O00220) Tumor necrosis factor receptor superfamily member 10A p	O00220	50028.81	3.21E−04
552	TBC1 domain family member 4 (Akt substrate)	O60343	146470.8	7.09E−04
553	Dual specificity protein phosphatase 5	Q16690	42080.39	2.53E−04
554	TRPM8_HUMAN (Q7Z2W7) Transient receptor potential cation channel subfamily M	Q7Z2W7	127573.3	7.58E−04
555	RUN domain containing 1	Q8IXT9	67603.02	2.55E−03
556	Q8NHQ3 (Q8NHQ3) RBBP8 protein	Q8NHQ3	102594.6	6.21E−05
557	GCN1-like protein 1 (HsGCN1)	Q92616	292424.8	5.09E−03
558	ZIC2_HUMAN (O95409) Zinc finger protein ZIC 2 (Zinc finger protein of the cere	O95409	54971.09	2.32E−03
559	Q702P2 (Q702P2) VPS13C-2B protein	Q702P2	407940.5	4.75E−03
560	MINT_HUMAN (Q96T58) Msx2-interacting protein (SPEN homolog) (SMART/HDAC1	Q96T58	402004.3	2.49E−03
561	COPG2_HUMAN (Q9UBF2) Coatomer gamma-2 subunit (Gamma-2 coat protein) (G	Q9UBF2	97559.69	1.54E−03
562	CYTC_HUMAN (P01034) Cystatin C precursor (Neuroendocrine basic polypeptide) (Ga	P01034	15789.08	2.77E−05
563	Q8TBE7 (Q8TBE7) TMEM22 protein	Q8TBE7	46419.88	7.86E−03
564	K2C6A_HUMAN (P02538) Keratin, type II cytoskeletal 6A (Cytokeratin-6A) (CK 6A)	P02538	59877.28	7.41E−07
565	VTNC_HUMAN (P04004) Vitronectin precursor (Serum spreading factor) (S-protein)	P04004	54271.23	5.97E−08
566	OPT_HUMAN (Q9UBM4) Opticin precursor (Oculoglycan)	Q9UBM4	37237.39	4.68E−07
567	Q15299 (Q15299) RARB protein	Q15299	11644	2.59E−04
568	Q8N780 (Q8N780) Hypothetical protein FLJ25943	Q8N780	33347.2	8.78E−04
569	Q8N8Z1 (Q8N8Z1) Hypothetical protein FLJ38687	Q8N8Z1	16623.52	1.10E−03
570	IPO9_HUMAN (Q96P70) Importin-9 (Imp9) (Ran-binding protein 9) (RanbP9)	Q96P70	115757.8	7.94E−04
571	SYP2L_HUMAN (Q9H987) Synaptopodin 2-like protein	Q9H987	102406.1	7.97E−03
572	TLR5_HUMAN (O60602) Toll-like receptor 5 precursor (Toll/interleukin-1 receptor	O60602	97663.38	3.64E−03
573	A1AG2_HUMAN (P19652) Alpha-1-acid glycoprotein 2 precursor (AGP 2) (Orosomuc	P19652	23587.64	4.46E−06
574	PSME3_HUMAN (P61289) Proteasome activator complex subunit 3 (Proteasome activ	P61289	29487.55	3.25E−03
575	ADIP_HUMAN (Q9Y2D8) Afadin- and alpha-actinin-binding protein (ADIP) (Afadin D	Q9Y2D8	71191.48	2.87E−03
576	PDE6A_HUMAN (P16499) Rod cGMP-specific 3',5'-cyclic phosphodiesterase alpha-su	P16499	99438.76	4.04E−03
577	TCPQ_HUMAN (P50990) T-complex protein 1, theta subunit (TCP-1-theta) (CCT-thet	P50990	59451.57	2.31E−03
578	Q7KZ97 (Q7KZ97) Antithrombin III variant	Q7KZ97	52657.96	3.10E−06
579	Q86WI3 (Q86WI3) NOD27	Q86WI3	204535	2.47E−03
580	Q969T7 (Q969T7) Hypothetical protein MGC20781	Q969T7	33551.02	5.37E−03
581	DGC14_HUMAN (Q96DF8) DGCR14 protein (DiGeorge syndrome critical region 14) (	Q96DF8	52535.89	5.80E−04
582	Q96LU7 (Q96LU7) Hypothetical protein FLJ25056	Q96LU7	31208.16	1.08E−03
583	PCDA7_HUMAN (Q9UN72) Protocadherin alpha 7 precursor (PCDH-alpha7)	Q9UN72	100802.9	3.78E−03

TABLE 11-continued

Vitreous proteins identified from patients with retinal detachment (RD) & Macular Hole (MH)

584	RHG26_HUMAN (Q9UNA1) Rho-GTPase-activating protein 26 (Oligophrenin-1-like pr	Q9UNA1	92176.67	4.55E−03
585	TF2AY_HUMAN (Q9UNN4) TFIIA-alpha and beta-like factor (General transcription f	Q9UNN4	52412.98	4.50E−03

[0069]

TABLE 12

Proteins identified in both Retinal Detachment and Macular Hole diagnosed patients (10 patients, 50 runs)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Pathology	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	?s in 10 paids	in 50 runs
1	RD_MH	GFILAEBD	Serotransferrin precursor	4.22E−14	76999.66	P02787	20	10	50
2	RD_MH	GILHBACE	Serum albumin precursor	1.00E−30	69321.63	P02768	11	10	50
3	RD_MH	LGHIACDE	Hypothetical protein	1.27E−07	20655.36	Q56917	3	7	46
4	RD_MH	LIFGECBA	Transthyretin precursor	1.00E−30	15877.05	P02766	4	10	43
5	RD_MH	BDACHILF	Interphotoreceptor retinoid-binding protein precur?	1.00E−30	135277.8	P10745	1	10	43
6	RD_MH	?LGIHC-BD?	Keratin, type II cytoskeletal 1	9.37E−12	65846.88	P04264	7	6	41
7	RD_MH	BDECLFIG	Clusterin precursor	3.33E−12	52461.05	P10909	9	10	40
8	RD_MH	FGLIDAEC	Alpha-1-acid glycoprotein 1 precursor	5.78E−12	23496.77	P02763	2	6	32
9	RD_MH	?GIHCA-DE?	PH domain containing protein	3.94E−05	53317.19	Q8TD55	1	5	32
10	RD_MH	BCDEFHG	Ig gamma-1 chain C region	4.94E−13	36083.16	P01857	8	7	30
11	RD_MH	FGIHAEBD	Apolipoprotein A-I precursor	3.44E−14	30758.94	P02647	9	5	28
12	RD_MH	EBDCFLIH	Hemopexin precursor	8.88E−15	51643.32	P02790	4	6	27
13	RD_MH	DBALGFH?	Keratin, type I cytoskeletal 10	1.51E−09	59482.76	P13645	1	4	26
14	RD_MH	?GLHCDEA	Transcription factor NF-E4	1.59E−04	19006.73	Q86UQ8	1	6	25
15	RD_MH	?EABFGH?	Apolipoprotein A-II precursor	5.95E−12	11167.9	P02652	1	5	25
16	RD_MH	?FIHGB-CD?	Keratin 10	1.11E−15	57212.99	Q14664	1	6	24
17	RD_MH	BDFHI	Hemoglobin delta subunit	1.78E−14	15914.25	P02042	13	3	24
18	RD_MH	BEALHGI?	Pigment epithelium-derived factor precursor	1.93E−10	46313.36	P36955	8	4	22
19	RD_MH	?ECDBFG?	Alpha-1-antitrypsin precursor	8.88E−15	46707.09	P01009	4	7	21
20	RD_MH	FHGIDBC	Alpha 2 globin variant	1.89E−12	15270.94	Q53F97	5	6	21
21	RD_MH	?ILHGA-EC?	Hypothetical protein FLJ42076	8.88E−05	21036.72	Q6ZVU4	1	6	21
22	RD_MH	?LGIAE-CB?	Nuclear receptor-interacting factor	1.57E−03	52754.03	Q8WY14	1	5	21
23	RD_MH	DAECHLIG	Keratin, type II cytoskeletal 1b	2.57E−06	61650.4	Q7Z794	2	9	20
24	RD_MH	ADCEGHI?	Hypothetical protein FLJ40259	1.29E−04	66086.88	Q8N7W7	1	5	19
25	RD_MH	HGLFBA	Keratin, type II cytoskeletal	2.77E−09	65825.37	P35908	1	9	17
26	RD_MH	BDFIH	Beta-globin gene from a thalassemia patient	2.17E−12	18918.59	Q14473	10	6	17
27	RD_MH	ECDAGIH?	HNRBF-2	5.30E−05	31787.43	Q9H2I2	1	6	15
28	RD_MH	ABHFLI	Dickkopf-related protein 3 precursor	2.33E−08	38266.07	Q9UBP4	3	5	15
29	RD_MH	DECALHG	Double-stranded RNA-binding protein	1.39E−04	63227.92	O95793	1	5	14
30	RD_MH	ABEDGHF	Complement C4-A precursor	4.22E−14	192649.5	P0C0L4	1	6	13
31	RD_MH	IGLHCD	Hypothetical protein	6.10E−04	9188.304	Q6PHR9	1	6	13
32	RD_MH	BCDGLI	Vacuolar protein sorting 13A	9.97E−04	360046.1	Q96RL7	1	5	13
33	RD_MH	ABFLIH	Hypothetical protein DKFZp686I04196	1.25E−11	46031.66	Q6N093	6	3	13
34	RD_MH	FHGAE	Vitamin D-binding protein	2.26E−10	52902.04	Q6GTG1	1	7	12
35	RD_MH	ILHEDCA	KIAA1200 protein	1.07E−03	155607.6	Q9ULM0	2	4	12
36	RD_MH	ECAHFIL	Tumor necrosis factor	1.04E−03	20099.21	Q5VWH1	1	4	12
37	RD_MH	?GLDEA?	PML-RARA regulated adaptor molecule	1.05E−03	73950.18	Q8N6W7	1	4	12
38	RD_MH	FGDBCA	Hypothetical protein DKFZp686J11235	4.12E−10	54424.95	Q6MZW0	4	6	11
39	RD_MH	ACEILFG	Tuberin (Tuberous sclerosis 2 protein)	7.82E−05	200621.4	P49815	1	4	11
40	RD_MH	CAEGHL	Kallikrein-14 precursor	1.67E−04	27434.89	Q9P0G3	1	4	11
41	RD_MH	BGLFH	K1C9_HUMAN (P35527) Keratin, type I cytoskele	2.20E−12	62091.76	P35527	2	3	11
42	RD_MH	FHGIA	IGKC protein	1.11E−15	25919.92	Q502W4	3	7	10
43	RD_MH	AEDCBGI	Zinc finger protein 185	4.35E−03	49156.87	O15231	1	8	9
44	RD_MH	FHBA	IGLC2 protein	1.61E−13	24784.13	Q567P1	3	7	9
45	RD_MH	FIGEC	Receptor-type tyrosine-protein phosphatase delta	2.34E−03	214623.5	P23468	1	6	9
46	RD_MH	CDAEH	ADAMTS-12 precursor	2.30E−04	177429.5	P58397	1	5	9
47	RD_MH	ABDFG	Complement C3 precursor	5.42E−11	187045.3	P01024	1	4	9
48	RD_MH	GHLB	Adenylyl cyclase type V	1.51E−04	39312.25	Q7RTV7	1	4	9
49	RD_MH	HLIGBD	Hypothetical protein TMEM55A	3.73E−05	28062.26	Q8N4L2	1	9	8
50	RD_MH	HILD	Cytochrome P450, family 20, subfamily A,	2.11E−06	52460.08	Q8WWA9	1	8	8
51	RD_MH	BAEF	Ceruloplasmin precursor	1.11E−12	122127.6	P00450	3	6	8
52	RD_MH	EDCBG	Colony stimulating factor 2 receptor	7.80E−05	46871.63	Q4V312	1	5	8

TABLE 12-continued

Proteins identified in both Retinal Detachment and Macular Hole diagnosed patients (10 patients, 50 runs)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Pathology	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	?s in 10 paids	in 50 runs
53	RD_MH	IGHACB	Hypothetical protein FLJ35435	1.80E-05	65308.66	Q8NAF6	1	5	8
54	RD_MH	GHILAC	Hypothetical protein FAM33A	1.51E-03	14179.33	Q8WVK7	1	5	8
55	RD_MH	LBA	Alpha-2-macroglobulin precursor	5.36E-09	163174.3	P01023	2	3	8
56	RD_MH	HFAB	RhoGTPase regulating protein variant	5.25E-04	130153.4	Q6RJU1	1	3	8
57	RD_MH	AHIG	SGCE_HUMAN (O43556) Epsilon-sarcoglycan p?	2.18E-04	49722.25	O43556	1	2	8
58	RD_MH	GHLABE	Intercellular adhesion molecule 3 precursor	2.21E-03	59345.85	P32942	1	6	7
59	RD_MH	ECHLG	Proto-oncogene tyrosine-protein kinase	4.63E-05	93412.31	P07332	1	5	7
60	RD_MH	ECGIL	Calcium-independent phospholipase A2	2.83E-03	88421.11	Q9NP80	1	5	7
61	RD_MH	HLGDCB	WD-repeat protein 9	1.15E-03	257060.4	Q9NSI6	1	5	7
62	RD_MH	FBA	Ig gamma-3 chain C region	2.03E-09	32309.81	P01860	1	4	7
63	RD_MH	ILEAD	Dystroglycan precursor	1.67E-03	97519.91	Q14118	2	3	7
64	RD_MH	CAF	LOC150763 protein	7.57E-05	87507.18	Q6NUI2	1	3	7
65	RD_MH	LAB	Osteopontin precursor	5.20E-10	35401.25	P10451	1	2	7
66	RD_MH	GEC	Q6ZTG8 (Q6ZTG8) Hypothetical protein FLJ4467	3.09E-03	115755	Q6ZTG8	1	2	7
67	RD_MH	LHFB	Apolipoprotein E precursor	3.48E-08	36131.79	P02649	1	8	6
68	RD_MH	LGHE	Novel protein	1.60E-03	107275.7	Q5T7N3	1	7	6
69	RD_MH	BCEIH	Hypothetical protein FLJ40243	1.50E-03	180566.4	Q7Z745	1	7	6
70	RD_MH	EDCBH	Hypothetical protein DKFZp434I138	2.57E-04	78784.1	Q659E3	1	6	6
71	RD_MH	EDG	Hypothetical protein FLJ43007	1.02E-04	19332.49	Q6ZV44	1	6	6
72	RD_MH	HIGAD	Protein C19orf10 precursor (Stromal cell-derived	2.10E-03	18783.32	Q969H8	1	4	6
73	RD_MH	GCE	Q9NXK0 (Q9NXK0) Hypothetical protein FLJ2020	1.52E-03	44899.86	Q9NXK0	1	4	6
74	RD_MH	CEGH	Basement membrane-specific heparan sulfate pro?	4.04E-04	468528.2	P98160	1	3	6
75	RD_MH	AF	O95978 (O95978) VH1 protein precursor (Fragm?	1.17E-07	17292.5	O95978	1	2	6
76	RD_MH	FGA	Alpha-2-HS-glycoprotein precursor	1.29E-06	39299.73	P02765	2	7	5
77	RD_MH	AEF	Cytochrome P450	4.19E-04	55766.2	P10635	1	7	5
78	RD_MH	HLIAB	Zinc finger protein 197	4.48E-04	118770.8	O14709	1	5	5
79	RD_MH	FBCA	Q8N7Q3 (Q8N7Q3) Hypothetical protein FLJ4047	1.50E-03	45893.4	Q8N7Q3	1	5	5
80	RD_MH	CAHG	Trichohyalin	2.97E-03	247074.4	Q07283	1	4	5
81	RD_MH	IHBD	Hypothetical protein FLJ44832	2.50E-03	139335.1	Q6ZQT3	1	4	5
82	RD_MH	ILE	Hypothetical protein KIAA1505	2.15E-03	112734.9	Q8IYE0	1	4	5
83	RD_MH	CDEI	G patch domain containing protein 3	2.28E-03	59301.11	Q96I76	1	4	5
84	RD_MH	CDHLI	ADAM 28 precursor	2.62E-04	87151.09	Q9UKQ2	1	4	5
85	RD_MH	FB	Beta-2-glycoprotein I precursor	3.39E-08	38272.67	P02749	1	3	5
86	RD_MH	GHADC	Alpha-internexin	6.89E-04	55357.48	Q16352	1	3	5
87	RD_MH	CLH	Q684R2 (Q684R2) Para-hydroxybenzoate--polyp?	3.25E-03	45578.79	Q684R2	1	3	5
88	RD_MH	LGDE	Q9Y2W9 (Q9Y2W9) Endocrine regulator	1.57E-04	231761.3	Q9Y2W9	1	3	5
89	RD_MH	EDHL	G protein-activated inward rectifier potassium cha	4.27E-04	56566.8	P48549	1	6	4
90	RD_MH	LIB	Keratin, type I cytoskeletal 12	7.68E-06	53478.53	Q99456	1	6	4
91	RD_MH	FLB	Gelsolin precursor	2.02E-04	85644.25	P06396	1	5	4
92	RD_MH	AFIG	TSP2_HUMAN (P35442) Thrombospondin-2 pre?	3.33E-04	129871.5	P35442	1	5	4
93	RD_MH	ECAH	Transmembrane channel-like protein 7	2.53E-03	83447.49	Q7Z402	1	5	4
94	RD_MH	BADF	Protein KIAA1199 precursor	1.11E-03	152900	Q8WUJ3	1	5	4
95	RD_MH	HGDE	Filamin-A	1.64E-03	280583.4	P21333	1	4	4
96	RD_MH	ABF	Prostaglandin-H2 D-isomerase	3.34E-10	21015.35	P41222	1	4	4
97	RD_MH	FIE	HSAL5836	2.94E-03	9682.161	Q6UWG9	1	4	4
98	RD_MH	DBHL	Hypothetical protein gs80	9.47E-04	25483.99	Q96S02	1	4	4
99	RD_MH	BHL	AACT_HUMAN (P01011) Alpha-1-antichymotryps?	2.48E-04	47620.63	P01011	1	3	4
100	RD_MH	AGIF	MRP1 HUMAN (P33527) Multidrug resistance-as	1.77E-03	171450.5	P33527	1	3	4
101	RD_MH	FB	Keratin, type II cytoskeletal 2	4.77E-04	65830.09	Q01546	1	3	4
102	RD_MH	DEGF	Maguin-like protein variant II	1.71E-03	61848.88	Q5SGD5	1	3	4
103	RD_MH	LB	Q6PHR8 (Q6PHR8) Hypothetical protein (Fragme?	2.10E-03	33452.8	Q6PHR8	1	3	4
104	RD_MH	LGED	Q8NDD1 (Q8NDD1) Hypothetical protein DKFZp5	5.52E-03	32732.49	Q8NDD1	1	3	4
105	RD_MH	FCA	Q9H6E6 (Q9H6E6) Hypothetical protein FLJ2234	1.41E-03	81825.66	Q9H6E6	1	2	4
106	RD_MH	ACI	Mitochondrial 28S ribosomal protein S2	5.60E-05	33228.08	Q9Y399	1	2	4
107	RD_MH	BAL	Supervillin	5.54E-03	247550.6	O95425	1	6	3
108	RD_MH	AFG	RETBP_HUMAN (P02753) Plasma retinol-bindin?	1.36E-03	22995.26	P02753	1	6	3
109	RD_MH	GHA	Ubiquitin conjugation factor E4	7.16E-05	122482	Q14139	1	5	3
110	RD_MH	HEB	Q9ULI2 (Q9ULI2) KIAA1238 protein (Fragment)	2.40E-03	45141.04	Q9ULI2	1	5	3
111	RD_MH	LEA	HYES_HUMAN (P34913) Epoxide hydrolase 2 (E	4.29E-04	62574.77	P34913	1	4	3
112	RD_MH	ELH	MYO7A_HUMAN (Q13402) Myosin-7A (Myosin V	8.23E-04	254242.5	Q13402	1	4	3
113	RD_MH	LIA	PCSK5_HUMAN (Q92824) Proprotein convertas?	2.56E-04	101708.3	Q92824	1	4	3
114	RD_MH	IAD	TR10A_HUMAN (O00220) Tumor necrosis factor	3.21E-04	50028.81	O00220	1	3	3
115	RD_MH	DAF	TBC1 domain family member 4 (Akt substrate)	7.09E-04	146470.8	O60343	1	3	3
116	RD_MH	BAH	Dual specificity protein phosphatase 5	2.53E-04	42080.39	Q16690	1	3	3
117	RD_MH	GHA	TRPM8_HUMAN (Q7Z2W7) Transient receptor p	7.58E-04	127573.3	Q7Z2W7	1	3	3
118	RD_MH	CEI	RUN domain containing 1	2.55E-03	67603.02	Q8IXT9	1	3	3
119	RD_MH	LHB	Q8NHQ3 (Q8NHQ3) RBBP8 protein	6.21E-05	102594.6	Q8NHQ3	1	3	3
120	RD_MH	CEF	GCN1-like protein 1 (HsGCN1)	5.09E-03	292424.8	Q92616	1	3	3
121	RD_MH	LEC	ZIC2_HUMAN (O95409) Zinc finger protein ZIC 2	2.32E-03	54971.09	O95409	1	2	3
122	RD_MH	FE	Q702P2 (Q702P2) VPS13C-2B protein	4.75E-03	407940.5	Q702P2	1	2	3

TABLE 12-continued

Proteins identified in both Retinal Detachment and Macular Hole diagnosed patients (10 patients, 50 runs)
SEQUEST filters: p prob < 0.01; Xcorr vs charge state: 1.5 for [M + H]1+, 2.0 for [M + 2H]2+, 2.5 for [M + 3H]3+; DCn > 0.1

	Pathology	Patients	Reference	P (pro)	MW	Accession	?tide (Hits)	?s in 10 paids	in 50 runs
123	RD_MH	CLH	MINT_HUMAN (Q96T58) Msx2-interacting protei?	2.49E-03	402004.3	Q96T58	1	2	3
124	RD_MH	FA	COPG2_HUMAN (Q9UBF2) Coatomer gamma-2	1.54E-03	97559.69	Q9UBF2	1	2	3
125	RD_MH	HA	CYTC_HUMAN (P01034) Cystatin C precursor (?	2.77E-05	15789.08	P01034	1	6	2
126	RD_MH	HB	Q8TBE7 (Q8TBE7) TMEM22 protein	7.86E-03	46419.88	Q8TBE7	1	6	2
127	RD_MH	LB	K2C6A_HUMAN (P02538) Keratin, type II cytoske	7.41E-07	59877.28	P02538	1	5	2
128	RD_MH	FB	VTNC_HUMAN (P04004) Vitronectin precursor (?	5.97E-08	54271.23	P04004	1	5	2
129	RD_MH	BL	OPT_HUMAN (Q9UBM4) Opticin precursor (Ocu?	4.68E-07	37237.39	Q9UBM4	1	5	2
130	RD_MH	HE	Q15299 (Q15299) RARB protein	2.59E-04	11644	Q15299	1	4	2
131	RD_MH	EI	Q8N780 (Q8N780) Hypothetical protein FLJ2594?	8.78E-04	33347.2	Q8N780	1	4	2
132	RD_MH	CH	Q8N8Z1 (Q8N8Z1) Hypothetical protein FLJ3868	1.10E-03	16623.52	Q8N8Z1	1	4	2
133	RD_MH	EG	IPO9_HUMAN (Q96P70) Importin-9 (Imp9) (Ran-	7.94E-04	115757.8	Q96P70	1	4	2
134	RD_MH	EG	SYP2L_HUMAN (Q9H987) Synaptopodin 2-like p	7.97E-03	102406.1	Q9H987	1	4	2
135	RD_MH	EI	TLR5_HUMAN (O60602) Toll-like receptor 5 prec	3.64E-03	97663.38	O60602	2	3	2
136	RD_MH	BF	A1AG2_HUMAN (P19652) Alpha-1-acid glycopro?	4.46E-06	23587.64	P19652	1	3	2
137	RD_MH	AH	PSME3_HUMAN (P61289) Proteasome activator	3.25E-03	29487.55	P61289	1	3	2
138	RD_MH	FC	ADIP_HUMAN (Q9Y2D8) Afadin- and alpha-actin	2.87E-03	71191.48	Q9Y2D8	1	3	2
139	RD_MH	CH	PDE6A_HUMAN (P16499) Rod cGMP-specific 3'	4.04E-03	99438.76	P16499	1	2	2
140	RD_MH	AI	TCPQ_HUMAN (P50990) T-complex protein 1, th	2.31E-03	59451.57	P50990	1	2	2
141	RD_MH	FC	Q7KZ97 (Q7KZ97) Antithrombin III variant	3.10E-06	52657.96	Q7KZ97	1	2	2
142	RD_MH	GE	Q86WI3 (Q86WI3) NOD27	2.47E-03	204535	Q86WI3	1	2	2
143	RD_MH	AG	Q969T7 (Q969T7) Hypothetical protein MGC2078	5.37E-03	33551.02	Q969T7	1	2	2
144	RD_MH	EG	DGC14_HUMAN (Q96DF8) DGCR14 protein (Di?	5.80E-04	52535.89	Q96DF8	1	2	2
145	RD_MH	AH	Q96LU7 (Q96LU7) Hypothetical protein FLJ2505?	1.08E-03	31208.16	Q96LU7	1	2	2
146	RD_MH	IE	PCDA7_HUMAN (Q9UN72) Protocadherin alpha	3.78E-03	100802.9	Q9UN72	1	2	2
147	RD_MH	FE	RHG26_HUMAN (Q9UNA1) Rho-GTPase-activat	4.55E-03	92176.67	Q9UNA1	1	2	2
148	RD_MH	HA	TF2AY_HUMAN (Q9UNN4) TFIIA-alpha and beta	4.50E-03	52412.98	Q9UNN4	1	2	2

? indicates text missing or illegible when filed

[0070]

TABLE 13

Function and sub-cellular location of proteins identified in

Protein	Sub-cellular Location	Function
(A) Macular Hole		
Sortilin-related receptor precursor	membrane	endocytic receptor
Neuronal membrane glycoprotein M6-a	membrane	neural development
Kinesin-like protein KIF1A	synaptic vesicles	axonal transport
Voltage-dependent T-type calcium channel alpha-1G subunit	membrane	calcium influx/eflux
Ryanodine receptor 2 (Cardiac muscle-type ryanodine receptor)	membrane	transverse-tubules and sarcoplasmic reticulum
SOX-12 protein (SOX-22 protein)	nucleus	non-histone DNA binding
Frizzled 6 precursor (Frizzled-6) (Fz-6) (hFz6)	membrane	cell differentitation/morphogenesis
Retinoblastoma-binding protein 5 (RBBP-5)	nucleus	transcription
Retinoic acid receptor alpha (RAR-alpha)	nucleus	retonic acid receptor
(B) Retinal Detachment		
LOC131076 protein	unknown	function unknown, coiled coiled domain protein
T-cell activation Rho GTPase-activating protein	cytoplasm	GTP-ase activator, T cell activation
Huntingtin interacting protein E	cytoplasm	signal transduction
Synaptotagmin-5 (Synaptotagmin V) (SytV)	Synaptic vesicle	Calcium dependent exocytosis
Huntingtin-associated protein-interacting protein	cytoplasm	signal transduction
VGFR2_Vascular endothelial growth factor receptor 2 precursor	membrane	angiogenesis, vascular permeability
Presynaptic protein SAP97 (Synapse-associated protein 97)	cytoskeleton	scaffolding protein
Retinoblastoma-associated factor 600 (RBAF600) (Fragment)	nucleus	possible chromatin remodeling

1. A method of characterizing the physiological state of the eye, comprising detecting the presence or absence in vitreous fluid of one or more polypeptides or fragments thereof.

2. A method of characterizing the physiological state of the eye, comprising detecting the presence or absence in vitreous fluid of one or more biomarker attractant-associated polypeptides or fragments thereof.

3. A method of claim 1, wherein said method is to diagnose a disease.

4. A method of claim 1, wherein said method is to determine the risk of a disease.

5. A method of claim 1, wherein at least one said polypeptides or fragment is selected from the polypeptides listed in Table 2 to Table 13.

6. A method of claim 1, wherein said method is for characterizing the integrity of retinal blood vessels, comprising detecting the presence or absence in vitreous fluid of at least one polypeptide or fragment.

7. A method of characterizing the physiological state of a living system, comprising detecting the presence or absence in a vitreous fluid of one or more polypeptides or fragments thereof.

8. A method of claim 7, wherein said polypeptide is associated with a biomarker-attractant molecule.

9. A method of claim 7, for monitoring drug efficacy or dynamics.

10. A method of claim 7, which is a method for monitoring or characterizing the physiological state of the brain.

11. A method of claim 7, wherein at least one said polypeptide or fragment is selected from the polypeptides listed in Table 2 to Table 13.

12. A method of claim 7, which is a method for monitoring the physiological effects of intraocular or systemic drugs.

13. A method of monitoring the signaling pathway status of a subject, comprising:

measuring the presence of a phosphorylated polypeptide fragment in vitreous fluid.

14. A method of claim 13, wherein the phosphorylated polypeptide is a receptor polypeptide or a fragment thereof.

15. A method of claim 14, wherein the phosphorylated receptor is a G-protein coupled receptor or a hormone activated receptor.

16. A method of claim 14, wherein the phosphorylated receptor is VEGFR-2 or PDGFR-beta.

17. A method of monitoring the efficacy of a tyrosine kinase inhibitor in a subject to whom said inhibitor has been administered, comprising

measuring the presence of a phosphorylated polypeptide or fragment in a vitreous fluid of the subject, wherein the subject has been administered a tyrosine kinase inhibitor.

18. A method of claim 17, wherein said tyrosine kinase inhibitor inhibits the phosphorylation of a tyrosine-kinase receptor or enzyme.

19. A method of claim 1, wherein the detecting is accomplished using a protein micro array, immunoassay, ligand binding assay, electrophoresis, or mass spectroscopy of a vitreous fluid sample.

20. A method of claim 1, wherein the detecting is accomplished using non-invasive optical measurements of vitreous fluid samples.

21. A method of claim 1, wherein said sample is extracted into a reservoir comprising at least one chemical to protect the polypeptide integrity.

22. A method of claim 21, wherein the chemical is a protease inhibitor or a phosphatase inhibitor.

23. A hollow bore cannula or cutter for vitrectomy, comprising a reservoir in said cannula or cutter comprising at least one chemical to protect polypeptide integrity.

24. A proteomic fingerprint, comprising at least one, or a plurality of, isolated vitreous fluid polypeptides or fragments thereof or a measurement related thereto, wherein said polypeptides are selected from the polypeptides listed in Table 2 to Table 13.

25. A proteomic fingerprint of vitreous fluid, comprising at least one isolated vitreous fluid biomarker attractant-associated polypeptide or a fragment thereof or a measurement related thereto.

26. A proteomic fingerprint of claim 25, comprising a plurality of isolated vitreous fluid biomarker attractant-associated polypeptides or fragments thereof or a measurement related thereto.

27. A method of claim 3 wherein said disease is a retinal or ocular disease.

28. A method of claim 4 wherein said disease is a retinal or ocular disease.

29. A method of claim 6 wherein said polypeptide or fragment is not normally found in vitreous fluid but is normally found in blood.

30. A method of claim 3 wherein said disease is retinal detachment (RD) or macular hole (MH) comprising detecting the presence of one or more polypeptides of Table 11, Table 12 or Table 13.

31. A method of claim 3 wherein said disease is retinal detachment (RD) comprising detecting the presence of one or more polypeptides of Table 7 or Table 9.

32. A method of claim 3 wherein said disease is macular hole (MH) comprising detecting the presence of one or more polypeptides of Table 8 or Table 10.

33. A method of determining the association of a given disease and polypeptides present in said animal comprising comparing the spectrum of polypeptides in the vitreous fluid of a patient having the disease to the spectrum of polypeptides in the vitreous fluid of normal subject, determining the differences in said polypeptide spectra in terms of identity or amount of said polypeptide, and correlating the presence of said disease with at least one of said differences.

34. A Method of claim 33 in which the findings of the measurement are used to guide therapy using a drug, a biologic agent, a chemical, an antibody, autologous protein, or synthetic agent.

* * * * *

专利名称(译)	眼部液体标记物		
公开(公告)号	US20070224644A1	公开(公告)日	2007-09-27
申请号	US11/698998	申请日	2007-01-29
当前申请(专利权)人(译)	乔治·梅森知识产权，INC.		
[标]发明人	LIOTTA LANCE A ZHOU WEIDONG ESPINA VIRGINIA PETRICOIN EMANUEL		
发明人	LIOTTA, LANCE A. ZHOU, WEIDONG ESPINA, VIRGINIA PETRICOIN, EMANUEL		
IPC分类号	G01N33/53 C12Q1/48 G06F19/00 A61M31/00		
CPC分类号	C12Q1/485 G01N2800/164 G01N33/6842 G01N33/68 Y02A90/24		
优先权	60/762499 2006-01-27 US		
外部链接	Espacenet USPTO		

摘要(译)

本发明涉及用于确定生物体的生理状态的眼液的分析和监测，用于监测药物功效和动力学，用于早期疾病检测，以及鉴定的分子标记物和指纹分子中的分子标记物和指纹物。分析。

FIG 1.