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(54) **A method of selecting an antibody, a hybridoma, a monoclonal antibody and use thereof**

(57) The present invention provides a method of selecting an antibody against a target substance to be measured which comprises selecting the antibody against the target substance by antigen-antibody reaction in the presence of a substance interfering with the antigen-antibody reaction.

That is, an antigen and a labeled antigen are reacted with the antibody in the presence of an interfering substance such as an environment pollutant, and on the

basis of the degree of reaction thereof, the antibody against the target substance highly resistant to the interfering substance is selected. Thereby, even if a test sample is contaminated with a substance interfering with antigen-antibody reaction, the antibody highly resistant to a substance interfering with antigen-antibody reaction is not influenced by the interfering substance and gives a correct value in the quantification.



European Patent Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 02 00 9930 shall be considered, for the purposes of subsequent proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	EP 0 378 175 A (BOEHRINGER MANNHEIM GMBH) 18 July 1990 (1990-07-18) the whole document, see especially p. 3-4 and 8-10 ---	1,3,6-12	G01N33/53 G01N33/74 C12N5/18 C07K16/00
X	DIPIETRO D L: "ASSAY OF ESTRIOL 16-ALPHA BETA-D GLUCURONIDE IN PREGNANCY URINE WITH A SPECIAL ANTI SERUM" AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY, vol. 125, no. 6, 1976, pages 841-845, XP000900732 ISSN: 0002-9378 the whole document, see especially p. 841 and 842 -----	1,3,6,9	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G01N C12N C07K
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search: see sheet C</p>			
Place of search		Date of completion of the search	Examiner
MUNICH		2 April 2003	STEINHEIMER, K
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C07)



European Patent
Office

**INCOMPLETE SEARCH
SHEET C**

Application Number
EP 02 00 9930

Claim(s) searched incompletely:

1, 4-12

Claim(s) not searched:

2

Reason for the limitation of the search:

Present claims 1, 2 and 4-12 relate to an extremely large number of possible compounds/products/methods. Support within the meaning of Article 84 EPC and/or disclosure within the meaning of Article 83 EPC is to be found, however, for only a very small proportion of the compounds/products/methods claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the compounds/products/methods used in the examples, notably the use of hormones as target substrates.

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

3 (complete); 1 and 4-12 (partial)



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 3 (complete); 1 and 4-12 (partial)

Group 1: Claim 3 and claims 1 and 4-12 (as far as these claims refer to hormones)

This group of claims concerns a method of selecting an antibody against a hormone as target, which comprises selecting the antibody by using a reaction step where the antigen-antibody reaction is examined in the presence of an interfering substance. The claims also concern hybridomas producing such antibodies, the antibodies itself and test kits comprising them.

2. Claims: 2 (complete); 1 and 4-12 (partial)

Group 2: Claim 2 and claims 1 and 4-12 (as far as these claims refer to an environmental pollutant)

These claims concern the methods and products of group 1, whereby the target substance is an environmental pollutant.

3. Claims: 1 and 4-12 (partial)

Group 3: Claims 1 and 4-12 (as far as the claims refer to a target substance different from those mentioned above)

These claims concern the methods and products of group 1, whereby the target substance is any other target substance (not a hormone (group 1) or environmental pollutant (group 2)).

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 00 9930

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-04-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0378175 A	18-07-1990	DE 3900534 A1	12-07-1990
		AT 123340 T	15-06-1995
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		AU 4768490 A	19-07-1990
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		JP 2787098 B2	13-08-1998
		US 5614367 A	25-03-1997
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专利名称(译)	选择抗体，杂交瘤，单克隆抗体的方法及其用途		
公开(公告)号	EP1258729A3	公开(公告)日	2004-01-02
申请号	EP2002009930	申请日	2002-05-03
申请(专利权)人(译)	Takeda化学工业有限公司.		
当前申请(专利权)人(译)	日本ENVIROCHEMICALS. , LTD.		
[标]发明人	GODA YASUHIRO C O TAKEDA CHEM IND LT KOBAYASHI AYAKO C O TAKEDA CHEM IND HIROBE MASATO C O TAKEDA CHEM IND		
发明人	GODA, YASUHIRO, C/O TAKEDA CHEMICAL INDUSTRIES, LT KOBAYASHI, AYAKO, C/O TAKEDA CHEMICAL INDUSTRIES, HIROBE, MASATO, C/O TAKEDA CHEMICAL INDUSTRIES,		
IPC分类号	C07K16/26 C12N5/18 G01N33/68 G01N33/53 C07K16/00 G01N33/74		
CPC分类号	C07K16/26 G01N33/6854		
优先权	2001149832 2001-05-18 JP		
其他公开文献	EP1258729A2		
外部链接	Espacenet		

摘要(译)

本发明提供选择针对待测靶物质的抗体的方法，该方法包括在干扰抗原 - 抗体反应的物质存在下通过抗原 - 抗体反应选择针对靶物质的抗体。也就是说，抗原和标记的抗原在诸如环境污染物的干扰物质的存在下与抗体反应，并且基于其反应程度，针对干扰物质具有高度抗性的目标物质的抗体。被选中。因此，即使测试样品被干扰抗原 - 抗体反应的物质污染，对干扰抗原 - 抗体反应的物质具有高度抗性的抗体也不受干扰物质的影响，并且在定量中给出正确的值。

DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.)
Category	Citation of document with indication, where appropriate, of reasons for relevance		
X	EP 0 378 175 A (BOEHRINGER MANNHEIM GMBH) 18 July 1990 (1990-07-18) The whole document, see especially p. 3-4 and 8-10	1, 3, 6-12	G01N33/53 G01N33/74 C12N5/18 C07K16/00
X	DIPRETTO D L: "ASSAY OF ESTRADIOL 16-ALPHA BETA-D GLUCURONIDE IN PREGNANCY URINE WITH A SPECIAL ANTI-SERUM" AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY, vol. 125, (no. 6, 1976, pages 841-845, XP000900732 ISSN: 0002-9378 the whole document, see especially p. 841 and 842	1, 3, 6, 9	
INCOMPLETE SEARCH The search officer considers that the present application, or one or more of its claims, should be carried out, or can only be carried out partially, for these claims: Claims searched completely: Claims not searched: Reason for the limitation of the search: see sheet C			
Place of search		Date of completion of the search	Examiner
MUNICH		2 Apr 11 2003	STEINHEIMER, K
CATEGORY OF CITED DOCUMENTS X: particularly relevant if cited within document of the same category A: Technological background D: Non-written document -: Interfiled document I: theory or principle underlying the invention or other patent document for publication or after the filing date O: document cited in the application L: document cited for other reasons & member of the same patent family, corresponding document			