



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:

1-17 (all partially)



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: 1-17 (all partially)

Claims 1-17 (all partially): DNA encoding a human calcium sensitive potassium channel beta2 (corresponding to SEQ ID No.1 and 2) and the corresponding protein. The corresponding products or methods containing or using said DNA and protein: Expression vector, recombinant host cell, antibody, DNA or RNA oligonucleotide probe and a method for identifying substances that bind to calcium sensitive potassium channels containing human calcium sensitive potassium channel beta2.

2. Claims: 1-17 (all partially), claims 18-42 (all completely)

Claims 1-17 (all partially), claims 18-42 (all completely): DNA encoding a human calcium sensitive potassium channel beta3a, beta3b, beta3c, beta3d (corresponding to SEQ ID No.4-10, 20) and the corresponding proteins. The corresponding products or methods containing or using said DNA and proteins: Expression vector, recombinant host cell, antibody, DNA or RNA oligonucleotide probe, a method for identifying substances that bind to calcium sensitive potassium channels containing human calcium sensitive potassium channel beta3a, beta3b, beta3c, beta3d, a method of identifying DNA sequences in the beta3 gene that promote, enhance, or repress gene transcription.



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	<p>WALLNER M ET AL: "Molecular basis of fast inactivation in voltage and Ca²⁺-activated K⁺ channels: a transmembrane beta-subunit homolog." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA. UNITED STATES 30 MAR 1999, vol. 96, no. 7, 30 March 1999 (1999-03-30), pages 4137-4142, XP002929504 ISSN: 0027-8424 * abstract * * figure 1 * * figure 2 * * page 4138 *</p> <p style="text-align: center;">---</p>	1-17	<p>C07K14/47 C07K16/18 G01N33/53 G01N33/567 C12N5/10 C12N15/12 C12N15/63 C12N15/64 C07K14/705</p>
T	<p>UEBELE V N ET AL: "Cloning and functional expression of two families of beta-subunits of the large conductance calcium-activated K⁺ channel." THE JOURNAL OF BIOLOGICAL CHEMISTRY. UNITED STATES 28 JUL 2000, vol. 275, no. 30, 28 July 2000 (2000-07-28), pages 23211-23218, XP002236231 ISSN: 0021-9258 * the whole document *</p> <p style="text-align: center;">-----</p>	1-17	<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> <p>C07K</p>
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search		Date of completion of the search	Examiner
MUNICH		14 April 2003	Surdej, P
CATEGORY OF CITED DOCUMENTS		<p>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</p> <p>..... & : member of the same patent family, corresponding document</p>	
<p>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</p>			

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专利名称(译)	新型人钙敏感钾通道亚基		
公开(公告)号	EP1200467A4	公开(公告)日	2003-07-30
申请号	EP2000950422	申请日	2000-07-18
申请(专利权)人(译)	MERCK & CO. , INC.		
当前申请(专利权)人(译)	MERCK & CO. , INC.		
[标]发明人	UEBELE VICTOR SWANSON RICHARD LIU YUAN LAGRUTTA ARMANDO		
发明人	UEBELE, VICTOR SWANSON, RICHARD LIU, YUAN LAGRUTTA, ARMANDO		
IPC分类号	G01N33/50 C07K14/47 C07K14/705 C07K16/18 C12N1/15 C12N1/19 C12N1/21 C12N5/10 C12N15/09 C12N15/12 C12Q1/02 C12Q1/68 G01N33/15 G01N33/53 G01N33/559 G01N33/561 G01N33/58 C12N15/63 C12N15/64 G01N33/567		
CPC分类号	C07K14/705		
优先权	60/144764 1999-07-20 US		
其他公开文献	EP1200467A1		
外部链接	Espacenet		

摘要(译)

本发明涉及编码钙敏感性钾通道亚基β2, β3a, β3b, β3c和β3d的新型人DNA序列, 由DNA序列编码的蛋白质, 包含DNA序列的载体, 含有该序列的宿主细胞。载体和鉴定含有人β2, β3a, β3b, β3c或β3d亚基的钙敏感性钾通道的抑制剂和激动剂以及β3基因转录的抑制剂和激动剂的方法。

DOCUMENTS CONSIDERED TO BE RELEVANT														
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The supplementary search report has been based on the first set of claims valid and available at the start of the search.														
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<table border="0"> <tr> <td>CATEGORY OF CITED DOCUMENTS</td> <td>I : theory or principle underlying the invention</td> </tr> <tr> <td>X : particularly relevant to claim above</td> <td>E : scientific paper</td> </tr> <tr> <td>V : particularly relevant to claim with another document of the same category</td> <td>D : document cited in the application</td> </tr> <tr> <td>A : non-patent literature</td> <td>L : document cited for other reasons</td> </tr> <tr> <td>Q : non-written disclosure</td> <td>A : member of the same patent family, corresponding document</td> </tr> <tr> <td>P : intermediate document</td> <td></td> </tr> </table>			CATEGORY OF CITED DOCUMENTS	I : theory or principle underlying the invention	X : particularly relevant to claim above	E : scientific paper	V : particularly relevant to claim with another document of the same category	D : document cited in the application	A : non-patent literature	L : document cited for other reasons	Q : non-written disclosure	A : member of the same patent family, corresponding document	P : intermediate document	
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