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**WO 01/32128 A3**

(54) Title: HUMAN CHEMOKINE BETA-13

(57) Abstract: The present invention relates to a novel CK $\beta$ -13 protein which is a member of the chemokine family. In particular, isolated nucleic acid molecules are provided encoding the human CK $\beta$ -13 protein. CK $\beta$ -13 polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of CK $\beta$ -13 activity. Also provided are diagnostic methods for detecting immune system-related disorders and therapeutic methods for treating immune system-related disorders.

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/30237

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : A01N 63/00; C12P 21/06; C12N 15/00, 5/00; C07K 14/00, 16/00 US CL : 424/ 93.2; 435/69.1, 320.1, 375; 530/350, 387.1 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) U.S. : 424/ 93.2; 435/69.1, 320.1, 375; 530/350, 387.1		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) MEDLINE, EMBASE, BIOSIS, CAPLUS		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96/39521 A1 (HUMAN GENOME SCIENCES, INC.) 12 December 1996, whole document.	1-17, 21-24
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"I" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 25 MARCH 2001	Date of mailing of the international search report <b>25 APR 2001</b>	
Name and mailing address of the ISA-US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer <i>Olga N. Chernyshev</i> OLGA N. CHERNYSHEV Telephone No. (703)-308-0196	

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/30237**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-17, 21-24

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/30237

### BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-17, 21-24, drawn to nucleic acids, host cells, recombinant methods for protein production.

Group II, claim(s) 18-19, drawn to isolated polypeptide.

Group III, claim(s) 20, drawn to an antibody to the polypeptide

The inventions listed as Groups I-III do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons.

The special technical feature of Group I which defines an advance over the art is structural characterization of the isolated nucleic acid encoding CKbeta-13 polypeptide. The polypeptide of Group II does not share a special technical feature with the inventions of Group I because it is related to a materially discrete product. Similarly, the antibody of Group II does not share a special technical feature with either of groups I or II because the latter groups relate to products which are structurally and functionally unlike the product of Group I.

For the above reasons, the inventions of Groups I-III are not considered to be so linked in any pairing by a special technical feature so as to form a single general inventive concept within the meaning of PCT Rule 13.1.