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C07K 14/47, C12Q 1/68, C07K 16/18, G01N 33/53,  
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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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- with international search report

[Continued on next page]

(54) Title: LP MAMMALIAN PROTEINS; RELATED REAGENTS

(57) Abstract: Isolated nucleic acid molecules encoding polypeptides from a human, reagents related thereto (including purified polypeptidespecific antibodies) are provided. Methods of using said reagents and diagnostic kits are also provided.

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**(88) Date of publication of the international search report:**

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International Application No  
**PCT/US 02/00525**

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C12N15/12 C07K14/47 C12Q1/68 C07K16/18 G01N33/53  
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According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**  
 Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C12N C07K C12Q G01N

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 practical, search terms used)  
 EPO-Internal, WPI Data, PAJ, EMBL

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL 'Online! mRNA for GS3786, complete cds., 26 August 1996 (1996-08-26) retrieved from EMBL Database accession no. D87120 XP002230218 Both the nucleic acid and amino acid sequence are over the full length 100% identical to Seq. ID No.1 and 2 respectively.	1-20
A	WO 93 00353 A (US ARMY) 7 January 1993 (1993-01-07) page 8, paragraph 2 - paragraph 3; examples 24,25	1-20
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Further documents are listed in the continuation of box C.       Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "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) "O" 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	"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 "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 "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. "&" document member of the same patent family
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Date of the actual completion of the international search  <b>6 February 2003</b>	Date of mailing of the international search report  <b>12.06.03</b>
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <b>Griesinger, I</b>
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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/00525

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>BENJAMIN LEWIN: "Molekularbiologie der Gene" 1997, SPEKTRUM AKADEMISCHER VERLAG GMBH, HEIDELBERG, BERLIN XP002230217 The cited text was published 2002, but is a translation of the English original published in 1997. Particularly relevant is the fourth paragraph of the right-hand column of page 208. page 197 -page 217</p> <p>-----</p>	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 02/00525

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search 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:

see additional 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.:

1-20 (each claim partially)

Remark on Protest

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

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: Claims 1-20 (each claim partially)

Invention 1 concerns the cDNA clone with the clone ID LP194, the corresponding nucleic acid and amino acid sequences according to Seq. ID No. 1 and 2 respectively, the predicted functional regions as given in Table 1, the corresponding fragments, analogues, expression vectors, host cells, methods of detecting said polynucleotide and peptide, probes, antibodies, and kits.

Inventions 2: Claims 1-20 (each claim partially)

Invention 2 concerns the cDNA clone with the clone ID LP263a and b, wherein a and b represent splice variants of the same gene, the corresponding nucleic acid sequences according to Seq. ID No. 3 and 5 and amino acid sequences according to Seq. ID No. 4 and 6, the predicted functional regions as given in Table 2, the corresponding fragments, analogues, expression vectors, host cells, methods of detecting said polynucleotide and peptide, probes, antibodies, and kits.

Inventions 3-18: Claims 1-20 (each claim partially)

Inventions 3-18 concern 16 further cDNA clones as listed in Table 19, and for each clone one nucleic acid sequence according to Seq. ID No. 7-37 (uneven numbers only) and one amino acid sequences according to Seq. ID No. 8-38 (even numbers only), the predicted functional regions as given in Tables 3-18, the corresponding fragments, analogues, expression vectors, host cells, methods of detecting said polynucleotide and peptide, probes, antibodies, and kits.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/00525

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9300353	A	07-01-1993	AU 2240492 A	25-01-1993
			EP 0593580 A1	27-04-1994
			WO 9300353 A1	07-01-1993
			AU 3665893 A	03-09-1993
			WO 9316178 A2	19-08-1993

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