



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>C12N 15/12, C07K 14/47, C12N 15/10, 15/11</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 99/06553</b> <b>(43) International Publication Date:</b> 11 February 1999 (11.02.99)
<b>(21) International Application Number:</b> PCT/IB98/01237 <b>(22) International Filing Date:</b> 31 July 1998 (31.07.98) <b>(30) Priority Data:</b> 08/905,051 1 August 1997 (01.08.97) US <b>(71) Applicant (for all designated States except US):</b> GENSET [FR/FR]; 24, rue Royale, F-75008 Paris (FR). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> DUMAS MILNE EDWARDS, Jean-Baptiste [FR/FR]; 8, rue Grégoire de Tours, F-75006 Paris (FR). DUCLERT, Aymeric [FR/FR]; 6 ter, rue Victorine, F-94100 Saint-Maur (FR). LACROIX, Bruno [FR/FR]; 9, route de Vourles, F-69230 Saint-Genis Laval (FR). <b>(74) Agents:</b> MARTIN, Jean-Jacques et al.; Cabinet Regimbeau, 26, avenue Kléber, F-75116 Paris (FR).	<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <b>(88) Date of publication of the international search report:</b> 8 April 1999 (08.04.99)	
<b>(54) Title:</b> 5' ESTs FOR SECRETED PROTEINS EXPRESSED IN VARIOUS TISSUES		
<b>(57) Abstract</b> <p>The sequences of 5' ESTs derived from mRNAs encoding secreted proteins are disclosed. The 5' ESTs may be used to obtain cDNAs and genomic DNAs corresponding to the 5' ESTs. The 5' ESTs may also be used in diagnostic, forensic, gene therapy, and chromosome mapping procedures. Upstream regulatory sequences may also be obtained using the 5' ESTs. The 5' ESTs may also be used to design expression vectors and secretion vectors.</p>		

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INTERNATIONAL SEARCH REPORT

International Application No  
PCT/1B 98/01237

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 C12N15/12 C07K14/47 C12N15/10 C12N15/11

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 6 C12N C07K

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ADAMS M D ET AL: "INITIAL ASSESSMENT OF HUMAN GENE DIVERSITY AND EXPRESSION PATTERNS BASED UPON 83 MILLION NUCLEOTIDES OF CDNA SEQUENCE" NATURE, vol. 377, no. SUPPL, 28 September 1995, pages 3-17, XP002069461	3-8, 15-19, 21,24,27
Y	see the whole document  -& DATABASE EMBL - EMBEST14 Entry HSZZ87788, Acc.No. AA382642, 18 April 1997 ADAMS, M.D. ET AL.: "EST95896 Testis I Homo sapiens cDNA 5' end." XP002083842 see the whole document -& DATABASE EMBL - EMBEST14 Entry HSZZ86710, Acc.No. AA381563, -/--	12-14, 29-32, 35-37

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

10 November 1998

Date of mailing of the international search report

08.02.99

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## INTERNATIONAL SEARCH REPORT

International Application No

PC1, IB 98/01237

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

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	18 April 1997 ADAMS, M.D. ET AL.: "EST94680 Activated T-cell I Homo sapiens CDNA 5' end." XP002083843 see the whole document ---	
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Y	LIN Y ET AL: "INHIBITION OF NUCLEAR TRANSLOCATION OF TRANSCRIPTION FACTOR NF-KB BY A SYNTHETIC PEPTIDE CONTAINING A CELL MEMBRANE-PERMEABLE MOTIF AND NUCLEAR LOCALIZATION SEQUENCE" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 270, no. 24, 16 June 1995, pages 14255-14258, XP002050723 see the whole document ---	14
Y	GREENWOOD M T ET AL: "Cloning of the gene encoding human somatostatin receptor 2: sequence analysis of the 5'-flanking promoter region" GENE, vol. 159, no. 2, 4 July 1995, page 291-292 XP004042228 see the whole document ---	29-32
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Y	LOCKHART D J ET AL: "EXPRESSION MONITORING BY HYBRIDIZATION TO HIGH-DENSITY OLIGONUCLEOTIDE ARRAYS" BIO/TECHNOLOGY, vol. 14, no. 13, December 1996, pages 1675-1680, XP002022521 see the whole document ---	35-37
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## INTERNATIONAL SEARCH REPORT

 International Application No  
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 625 572 A (KANAGAWA ACAD OF SCIENCE AND TECHNOL FOUNDATION (JP); KATO S; SEKINE S) 23 November 1994 cited in the application ---	
A	CARNINCI P. ET AL.: "High-efficiency full-length cDNA cloning by biotinylated CAP trapper" GENOMICS, vol. 37, no. 3, 1 November 1996, pages 327-336, XP002081729 cited in the application ---	
A	WO 97 07198 A (GENETICS INSTITUTE INC (US); JACOBS K; MCCOY JM; KELLEHER K; CARLIN M) 27 February 1997 ---	
A	TASHIRO K. ET AL.: "Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins" SCIENCE, vol. 261, 30 July 1993, pages 600-603, XP000673204 ---	
A	YOKOYAMA-KOBAYASHI M. ET AL.: "A signal sequence detection system using secreted protease activity as an indicator" GENE, vol. 163, 1995, pages 193-196, XP002053953 ---	
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# INTERNATIONAL SEARCH REPORT

Inte. tional application No.  
PCT/IB 98/01237

## 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.:

1-37 partially (Invention 1. on continuation-sheet)

### 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

1. Claims: Invention 1: claims 1-37 all partially

Nucleic acid comprising the sequence as in Seq.ID:38, complementary sequence, fragments, hybridizing sequences. Polypeptide comprising a signal peptide encoded by said nucleotide sequence. Vector encoding a fusion protein comprising said signal peptide. A method of directing the extracellular secretion of a polypeptide by means of said vector. Method of importing a polypeptide into a cell by means of said signal peptide. A method for making a cDNA encoding a secretory protein, partially encoded by said nucleotide sequence, corresponding cDNA. Polypeptide encoded by said nucleotide sequence, comprising a sequence as in Seq.ID:186, method of making said polypeptide. Method of obtaining a promoter located upstream of said nucleotide sequence, promoter thereof.

2. Claims: Inventions 2-147: claims 1-37 all partially

Inventions 2-147: Idem as subject 1 but limited to each of the DNA sequences as in Seq.ID:39-185, and corresponding polypeptides, where invention 2 is limited to Seq.ID:39 and 187, invention 3 is limited to Seq.ID:40 and 188,....., invention 147 is limited to Seq.ID:185 and 333).

For the sake of conciseness, the first subject matter is explicitly defined, the other subject matters are defined by analogy thereto.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No  
PCT/IB 98/01237

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