



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 672 070 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
04.10.2006 Bulletin 2006/40

(43) Date of publication A2:
21.06.2006 Bulletin 2006/25

(21) Application number: **05025102.4**

(22) Date of filing: **01.12.2000**

(51) Int Cl.:
C12N 15/12 ^(2006.01) **C07K 14/47** ^(2006.01)
C07K 14/705 ^(2006.01) **G01N 33/53** ^(2006.01)
C12N 15/62 ^(2006.01) **C07K 16/18** ^(2006.01)

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **01.12.1999 WOPCT/US99/28301**
01.12.1999 WOPCT/US99/28634
02.12.1999 WOPCT/US99/28551
02.12.1999 WOPCT/US99/28564
02.12.1999 WOPCT/US99/28565
09.12.1999 US 170262 P
16.12.1999 WOPCT/US99/30095
20.12.1999 WOPCT/US99/30911
20.12.1999 WOPCT/US99/30999
30.12.1999 WOPCT/US99/31243
30.12.1999 WOPCT/US99/31274
05.01.2000 WOPCT/US00/00219
06.01.2000 WOPCT/US00/00277
06.01.2000 WOPCT/US00/00376
11.02.2000 WOPCT/US00/03565
18.02.2000 WOPCT/US00/04341
18.02.2000 WOPCT/US00/04342
22.02.2000 WOPCT/US00/04414
24.02.2000 WOPCT/US00/04914
24.02.2000 US 5004
01.03.2000 WOPCT/US00/05601
02.03.2000 WOPCT/US00/05841
03.03.2000 US 187202 P
10.03.2000 WOPCT/US00/06319
15.03.2000 WOPCT/US00/06884
20.03.2000 WOPCT/US00/07377
21.03.2000 WOPCT/US00/07532
30.03.2000 WOPCT/US00/08439
17.05.2000 WOPCT/US00/13705
22.05.2000 WOPCT/US00/14042
30.05.2000 WOPCT/US00/14941
02.06.2000 WOPCT/US00/15264
05.06.2000 US 209832 P
28.07.2000 WOPCT/US00/20710
11.08.2000 WOPCT/US00/22031
23.08.2000 WOPCT/US00/23522
24.08.2000 WOPCT/US00/23328
08.11.2000 WOPCT/US00/30952
10.11.2000 WOPCT/US00/30873

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
00983846.7 / 1 250 426

(71) Applicant: **GENENTECH, INC.**
South San Francisco, CA 94080-4990 (US)

(72) Inventors:

- **Baker, Kevin, P.**
Darnestown
MD 20878 (US)
- **Beresini, Maureen**
Moss Beach
CA 94038 (US)
- **Deforge, Laura**
Pacifica
CA 94044 (US)
- **Desnoyers, Luc**
San Francisco
CA 94133 (US)
- **Filvaroff, Ellen**
San Francisco
CA 94121 (US)
- **Gao, Wei-Qiang**
Foster City
CA 94404 (US)
- **Gerritsen, Mary, E.**
San Mateo
CA 94402 (US)
- **Goddard, Audrey**
San Francisco
CA 94131 (US)
- **Godowsky, Paul, J.**
Burlingame
CA 94010 (US)
- **Gurney, Austin, L.**
Belmont
CA 94002 (US)
- **Sherwood, Steven**
Los Altos
CA 94024 (US)
- **Smith, Victoria**
Burlingame
CA 94010 (US)

EP 1 672 070 A3

- **Stewart, Timothy, A.**
San Francisco
CA 94114 (US)
- **Tumas, Daniel**
Orinda, CA 94563 (US)
- **Wantanbe, Colin, K.**
Moraga
CA 94556 (US)
- **Wood, William, I.**
Cupertino, CA 95014 (US)

(74) Representative: **Denison, Christopher Marcus et al**
Mewburn Ellis LLP
York House
23 Kingsway
London WC2B 6HP (GB)

(54) **Secreted and transmembrane polypeptides and nucleic acids encoding the same**

(57) The present invention is directed to polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of

the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.



European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 05 02 5102 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 (IPC)
E	WO 02/42330 A (INCYTE GENOMICS, INC; BAUGHN, MARIAH, R; YAO, MONIQUE, G; WALIA, NARIN) 30 May 2002 (2002-05-30) * sequence 4 *	1-71	INV. C12N15/12 C07K14/47 C07K14/705
P,X	----- DATABASE WPI Section Ch, Week 200057 Derwent Publications Ltd., London, GB; Class B04, AN 2000-602362 XP002380206 & WO 00/58473 A2 (CURAGEN CORP) 5 October 2000 (2000-10-05) * abstract * * sequences 3229, 3230 *	1-71	G01N33/53 C12N15/62 C07K16/18
T	----- DATABASE Geneseq [Online] 6 November 2001 (2001-11-06), "Human polypeptide, SEQ ID NO: 3632." XP002380199 retrieved from EBI accession no. GSP:AAM93703 Database accession no. AAM93703 * the whole document *	-/--	
			TECHNICAL FIELDS SEARCHED (IPC)
			C12N C07K
INCOMPLETE SEARCH			
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. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C			
Place of search		Date of completion of the search	Examiner
The Hague		12 May 2006	Schmitz, T
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			

6

EPO FORM 1503 03.82 (P04C07)



European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number
EP 05 02 5102

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
E	& EP 1 130 094 A (HELIX RESEARCH INSTITUTE) 5 September 2001 (2001-09-05) * sequences 86, 1649, 3631 *	1-71	
T	----- DATABASE EMBL [Online] 17 March 2004 (2004-03-17), "Sequence 86 from Patent EP1396543." XP002380200 retrieved from EBI accession no. EM PAT:CQ779946 Database accession no. CQ779946 * the whole document *		
E	& EP 1 396 543 A (RESEARCH ASSOCIATION FOR BIOTECHNOLOGY) 10 March 2004 (2004-03-10) * sequences 86, 1649, 3631, 3632 *	1-71	TECHNICAL FIELDS SEARCHED (IPC)
A	----- DATABASE WPI Section Ch, Week 199919 Derwent Publications Ltd., London, GB; Class B04, AN 1999-229533 XP002380207 & WO 99/14328 A2 (GENENTECH INC) 25 March 1999 (1999-03-25) * abstract *		
E	----- DATABASE WPI Section Ch, Week 200148 Derwent Publications Ltd., London, GB; Class B04, AN 2001-451931 XP002380208 & WO 01/55326 A2 (HUMAN GENOME SCI INC) 2 August 2001 (2001-08-02) * abstract * * sequences 59, 219, 329, 543 *	1-71	
	----- -/--		



European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number
EP 05 02 5102

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	WO 98/45328 A (CORIXA CORPORATION) 15 October 1998 (1998-10-15) breast tumour specific polypeptide #187, 188, 190* sequences 294, 295, 297 * -----	1-71	
X	DATABASE WPI Section Ch, Week 199913 Derwent Publications Ltd., London, GB; Class B04, AN 1999-153781 XP002380209 & WO 99/06551 A2 (GENSET) 11 February 1999 (1999-02-11) * sequence 148 * * abstract * -----	1-71	
P,X	DATABASE EMBL [Online] Sequence version archive, issued 07.05.2000 7 June 2000 (2000-06-07), "EST367863 MAGE resequences, MAGD Homo sapiens cDNA, mRNA sequence." XP002380069 retrieved from EBI accession no. EM EST:AW955793 Database accession no. AW955793 * the whole document * -----	1-71	TECHNICAL FIELDS SEARCHED (IPC)
X	DATABASE EMBL [Online] Sequence version archive issued 03.09.1999 21 May 1999 (1999-05-21), "wc42d01.x1 NCI CGAP Pr28 Homo sapiens cDNA clone IMAGE:2321281 3' similar to TR:083807 083807 ANKYRIN, PUTATIVE. ;, mRNA sequence." XP002380070 retrieved from EBI accession no. EM EST:AI675967 Database accession no. AI675967 * the whole document * ----- -/--	1-71	



European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number
EP 05 02 5102

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	DATABASE EMBL [Online] Sequence version archive, issued 03.09.1999 26 August 1999 (1999-08-26), "wr41a10.x1 NCI CGAP Pr28 Homo sapiens cDNA clone IMAGE:2490234 3' similar to TR:Q92527 Q92527 ANKYRIN MOTIF. ;, mRNA sequence." XP002380071 retrieved from EBI accession no. EM_EST:AI972614 Database accession no. AI972614 * the whole document * -----	1-71	
X	DATABASE EMBL [Online] Sequence version archive, issued 03.09.1999 23 June 1999 (1999-06-23), "Homo sapiens mRNA; cDNA DKFZp434F122 (from clone DKFZp434F122)" XP002380072 retrieved from EBI accession no. EM_HTG:AL080200 Database accession no. AL080200 * the whole document * -----	1-71	TECHNICAL FIELDS SEARCHED (IPC)
A	DATABASE UniProt [Online] Sequence version archive, issued 01.11.1999 1 June 1998 (1998-06-01), "Homeobox-containing protein Wariai (Fragment)." XP002380073 retrieved from EBI accession no. UNIPROT:043988 Database accession no. 043988 * the whole document * -----		



Although claims 29-38, 47-68 are directed to a method of treatment of / a diagnostic method practised on the human/animal body (Article 52(4) EPC), the search has been carried out and based on the alleged effects of the compound/composition.

**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:

Invention 1: claims 1-71 (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:

Invention 1: claims 1-71 (all partially)

Polypeptide as defined by Figure 22 together with the coding DNA. Furthermore nucleic acids, antibodies, methods, vectors and host cells relating to said polypeptide.

Inventions 2-10: claims 1-71 (all partially)

as invention 1, but relating to Figures 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 respectively.

Inventions 11-294: claims 1-71 (all partially)

as invention 1, but relating to evenly numbered Figures 24-588 respectively.

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

EP 05 02 5102

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.

12-05-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
W0 0242330	A	30-05-2002	AU 3974702 A	03-06-2002
			CA 2426939 A1	30-05-2002
			EP 1334192 A2	13-08-2003
			JP 2004530412 T	07-10-2004

W0 0058473	A2	05-10-2000	AU 3774500 A	16-10-2000
			CA 2383592 A1	05-10-2000
			EP 1165784 A2	02-01-2002
			JP 2004507202 T	11-03-2004

EP 1130094	A	05-09-2001	NONE	

EP 1396543	A	10-03-2004	NONE	

W0 9914328	A2	25-03-1999	AU 741060 B2	22-11-2001
			CA 2303834 A1	25-03-1999
			JP 2001516580 T	02-10-2001
			JP 2002223786 A	13-08-2002
			JP 2002238586 A	27-08-2002
			JP 2002238587 A	27-08-2002
			JP 2002238588 A	27-08-2002
			JP 2002253280 A	10-09-2002
			NZ 503343 A	27-09-2002

W0 0155326	A2	02-08-2001	AU 4140501 A	07-08-2001
			AU 4140601 A	07-08-2001
			AU 4140701 A	07-08-2001
			AU 4140801 A	07-08-2001
			AU 4140901 A	07-08-2001
			AU 4141001 A	07-08-2001
			AU 4141101 A	20-08-2001
			AU 4141201 A	07-08-2001
			AU 4141301 A	07-08-2001
			AU 4141401 A	07-08-2001
			AU 4141501 A	07-08-2001
			AU 4141601 A	07-08-2001
			AU 4141701 A	07-08-2001
			AU 4141801 A	07-08-2001
			AU 4313701 A	14-08-2001
			AU 5077001 A	07-08-2001
			CA 2392398 A1	02-08-2001
			CA 2392422 A1	02-08-2001
			CA 2392428 A1	02-08-2001
			CA 2392438 A1	02-08-2001
			CA 2392450 A1	16-08-2001
			CA 2392751 A1	02-08-2001

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

EP 05 02 5102

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.

12-05-2006

Patent document cited in search report	Publication date	Patent family member(s)	Publication date			
W0 0155326	A2	CA 2392757 A1	02-08-2001			
		CA 2393002 A1	02-08-2001			
		CA 2393618 A1	02-08-2001			
		CA 2393652 A1	02-08-2001			
		CA 2393912 A1	02-08-2001			
		CA 2394039 A1	02-08-2001			
		CA 2394841 A1	02-08-2001			
		CA 2395178 A1	02-08-2001			
		CA 2395295 A1	02-08-2001			
		CA 2395398 A1	02-08-2001			
		CA 2395403 A1	02-08-2001			
		CA 2395654 A1	02-08-2001			
		CA 2395666 A1	02-08-2001			
		CA 2395671 A1	02-08-2001			
		CA 2395693 A1	02-08-2001			
		CA 2395699 A1	02-08-2001			
		CA 2395724 A1	02-08-2001			
		CA 2395729 A1	02-08-2001			
		CA 2395734 A1	02-08-2001			
		CA 2395738 A1	02-08-2002			
		CA 2395787 A1	02-08-2001			
		CA 2395816 A1	02-08-2001			
		CA 2395827 A1	02-08-2001			
		CA 2395849 A1	02-08-2001			
		CA 2395858 A1	02-08-2001			
		CA 2395872 A1	02-08-2001			
		CA 2395885 A1	02-08-2001			
		W0 9845328	A	15-10-1998	AU 6956098 A	30-10-1998
					BR 9808509 A	18-09-2001
					CA 2286348 A1	15-10-1998
EP 0975666 A2	02-02-2000					
JP 2001521384 T	06-11-2001					
NO 994932 A	07-12-1999					
PL 336349 A1	19-06-2000					
TR 9903154 T2	21-08-2000					
W0 9906551	A2	11-02-1999	AU 8555498 A	22-02-1999		
			CA 2296809 A1	11-02-1999		
			EP 1000149 A2	17-05-2000		
			JP 2001512014 T	21-08-2001		

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	分泌的和跨膜的多肽和编码它们的核酸		
公开(公告)号	EP1672070A3	公开(公告)日	2006-10-04
申请号	EP2005025102	申请日	2000-12-01
[标]申请(专利权)人(译)	健泰科生物技术公司		
申请(专利权)人(译)	基因泰克, INC.		
当前申请(专利权)人(译)	基因泰克, INC.		
[标]发明人	BAKER KEVIN P BERESINI MAUREEN DEFORGE LAURA DESNOYERS LUC FILVAROFF ELLEN GAO WEI QIANG GERRITSEN MARY E GODDARD AUDREY GODOWSKY PAUL J GURNEY AUSTIN L SHERWOOD STEVEN SMITH VICTORIA STEWART TIMOTHY A TUMAS DANIEL WANTANBE COLIN K WOOD WILLIAM I		
发明人	BAKER, KEVIN, P. BERESINI, MAUREEN DEFORGE, LAURA DESNOYERS, LUC FILVAROFF, ELLEN GAO, WEI-QIANG GERRITSEN, MARY, E. GODDARD, AUDREY GODOWSKY, PAUL, J. GURNEY, AUSTIN, L. SHERWOOD, STEVEN SMITH, VICTORIA STEWART, TIMOTHY, A. TUMAS, DANIEL WANTANBE, COLIN, K. WOOD, WILLIAM, I.		
IPC分类号	C12N15/12 C07K14/47 C07K14/705 G01N33/53 C12N15/62 C07K16/18 C12N15/09 A61K38/00 A61K38/17 A61K39/395 A61K45/00 A61K51/00 A61P35/00 C07K16/28 C07K16/30 C07K16/46 C07K19 /00 C12N1/19 C12N1/21 C12N5/07 C12N5/071 C12N5/077 C12N5/078 C12N5/10 C12N15/63 C12P21 /02 C12P21/08 C12Q1/02 C12Q1/68 G01N33/50 G01N33/566 G01N33/574		
CPC分类号	A61K38/00 A61P19/08 A61P27/16 A61P29/00 C07K14/47 C07K14/4748		
优先权	PCT/US1999/028301 1999-12-01 WO PCT/US1999/028634 1999-12-01 WO PCT/US1999/028551 1999-12-02 WO		

PCT/US1999/028564 1999-12-02 WO
PCT/US1999/028565 1999-12-02 WO
60/170262 1999-12-09 US
PCT/US1999/030095 1999-12-16 WO
PCT/US1999/030911 1999-12-20 WO
PCT/US1999/030999 1999-12-20 WO
PCT/US1999/031243 1999-12-30 WO
PCT/US1999/031274 1999-12-30 WO
PCT/US2000/000219 2000-01-05 WO
PCT/US2000/000277 2000-01-06 WO
PCT/US2000/000376 2000-01-06 WO
PCT/US2000/003565 2000-02-11 WO
PCT/US2000/004341 2000-02-18 WO
PCT/US2000/004342 2000-02-18 WO
PCT/US2000/004414 2000-02-22 WO
PCT/US2000/004914 2000-02-24 WO
PCT/US2000/005601 2000-03-01 WO
PCT/US2000/005841 2000-03-02 WO
60/187202 2000-03-03 US
PCT/US2000/006319 2000-03-10 WO
PCT/US2000/006884 2000-03-15 WO
PCT/US2000/007377 2000-03-20 WO
PCT/US2000/007532 2000-03-21 WO
PCT/US2000/008439 2000-03-30 WO
PCT/US2000/013705 2000-05-17 WO
PCT/US2000/014042 2000-05-22 WO
PCT/US2000/014941 2000-05-30 WO
PCT/US2000/015264 2000-06-02 WO
60/209832 2000-06-05 US
PCT/US2000/020710 2000-07-28 WO
PCT/US2000/022031 2000-08-11 WO
PCT/US2000/023522 2000-08-23 WO
PCT/US2000/023328 2000-08-24 WO
PCT/US2000/030952 2000-11-08 WO
PCT/US2000/030873 2000-11-10 WO

其他公开文献 EP1672070A2

外部链接 [Espacenet](#)

摘要(译)

本发明涉及新的多肽和编码这些多肽的核酸分子。本文还提供了包含那些核酸序列的载体和宿主细胞，包含与异源多肽序列融合的本发明多肽的嵌合多肽分子，与本发明多肽结合的抗体和产生本发明多肽的方法发明。



European Patent Office

PARTIAL EUROPEAN SEARCH REPORT

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

Application Number 05 02 5102

DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim	CLASSIFICATION OF THE CITATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages		
E	WO 92/42330 A (INCYTE GENOMICS, INC.; BAUGHN, MARIAH; R: YAO, MONIQUE, G: WALIA, MARIN) 30 May 2002 (2002-05-30) * sequence 4 *	1-71	INV. C12N15/12 C07K14/57 C07K14/705 G01N33/53 C12N15/62 C07K15/18
P.X	DATABASE WPI Section Ch. Week 200057 Derwent Publications Ltd., London, GB; Class. B04, AN 2000-602362 XP002380206 & WO 00/58473 A2 (CURAGEN CORP) 5 October 2000 (2000-10-05) * abstract * sequences 3229, 3230 *	1-71	
T	DATABASE Geneseq [Online] 6 November 2001 (2001-11-06), "Human polypeptide, SEQ ID NO: 3632," XP002380199 retrieved from EBI accession no. GSP:AAH93703 Database accession no. AAH93703 the whole document *	-/-	TECHNICAL FIELDS SEARCHED (IPC) C12N C07K
INCOMPLETE SEARCH The search division considers that the present application, or one or more of its claims, does/did not comply with the EPC/EPC-A and/or does/did not enter into the state of the art cannot be carried out, or can only be carried out partially, for these claims: Claims searched incompletely: Claims not searched: Reason for the limitation of the search: see sheet C			
Board of appeal		Date of completion of the search	
The Hague		12 May 2006	
CATEGORY OF CITED DOCUMENTS		Schmitz, T	
☒ particularly relevant if taken alone ☐ document of interest in connection with another ☐ non-written state of the art ☐ intermediate document		☐ theory or principle underlying the invention ☐ prior art document, but published on, or after, the filing date ☐ document cited in the application ☐ member of the same patent family, corresponding document	

6

EP 05 02 5102