



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C12N 15/31, C07K 14/35, A61K 39/04, 48/00, 49/00, C12N 15/62, C07K 19/00, G01N 33/50, 33/60, 33/569, C12N 1/19, 1/20, 1/21, 5/10 // (C12N 1/21, C12R 1:19)	A3	(11) International Publication Number: WO 98/16646 (43) International Publication Date: 23 April 1998 (23.04.98)
(21) International Application Number: PCT/US97/18293 (22) International Filing Date: 7 October 1997 (07.10.97) (30) Priority Data: 08/730,510 11 October 1996 (11.10.96) US 08/818,112 13 March 1997 (13.03.97) US (71) Applicant: CORIXA CORPORATION [US/US]; 1124 Columbia Street, Seattle, WA 98104 (US). (72) Inventors: REED, Steven, G.; 2843 - 122nd Place N.E., Bellevue, WA 98005 (US). SKEIKY, Yasir, A., W.; 8327 - 25th Avenue N.W., Seattle, WA 98107 (US). DILLON, Davin, C.; 21607 N.E. 24th Street, Redmond, WA 98053 (US). CAMPOS-NETO, Antonio; 9308 Midship Court N.E., Bainbridge Island, WA 98021 (US). HOUGHTON, Raymond; 2636 - 242nd Place S.E., Bothell, WA 98021 (US). VEDVICK, Thomas, S.; 124 South 300th Place, Federal Way, WA 98003 (US). TWARDZIK, Daniel, R.; 10195 South Beach Drive, Bainbridge Island, WA 98110 (US). LODES, Michael, J.; 9223 - 36th Avenue S.W., Seattle, WA 98126 (US).	(74) Agents: MAKI, David, J. et al.; Seed and Berry LLP, 6300 Columbia Center, 701 Fifth Avenue, Seattle, WA 98104-7092 (US). (81) Designated States: AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, 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, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> (88) Date of publication of the international search report: 8 October 1998 (08.10.98)	
(54) Title: COMPOUNDS AND METHODS FOR IMMUNOTHERAPY AND DIAGNOSIS OF TUBERCULOSIS (57) Abstract Compounds and methods for inducing protective immunity against tuberculosis are disclosed. The compounds provided include polypeptides that contain at least one immunogenic portion of one or more <i>M. tuberculosis</i> proteins and DNA molecules encoding such polypeptides. Such compounds may be formulated into vaccines and/or pharmaceutical compositions for immunization against <i>M. tuberculosis</i> infection, or may be used for the diagnosis of tuberculosis.		

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EE	Estonia						

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 97/18293

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/31 C07K14/35 A61K39/04 A61K48/00 A61K49/00
C12N15/62 C07K19/00 G01N33/50 G01N33/60 G01N33/569
C12N1/19 C12N1/20 C12N1/21 C12N5/10

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 A61K 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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 95 01441 A (STATENS SERUMSINSTITUT ;ANDERSEN PETER (DK); ANDERSEN AASE BENGAAR) 12 January 1995 see abstract see page 9, line 3 - page 20, line 31 see page 25, line 1-25 see page 32, line 6 - page 35, line 6 see page 43, line 9 - page 50, line 24 see claims --- -/--	1,3, 5-10,12, 15,16, 18-29, 32,33, 36,37

☒ 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

Date of the actual completion of the international search

5 March 1998

Date of mailing of the international search report

16 -07- 1998

Name and mailing address of the ISA

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Macchia, G

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 97/18293

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 // (C12N1/21, C12R1:19)

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)

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.
A	WO 95 01440 A (STATENS SERUMINSTITUT ;HASLOEV KAARE (DK); ANDERSEN AASE BENGAARD) 12 January 1995 see abstract see page 1, line 1-30 see page 4, line 8-31 see page 6, line 22 - page 7, line 21 see page 11, line 18 - page 12, line 31 see page 17, line 8-24 see page 24, line 18-25; figure 1 see page 30, line 26 - page 32, line 22 see page 36 - page 43; examples 2-5 see claims --- -/--	1,3, 5-10,12, 15,16, 18-29, 32,33, 36,37

☒ 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

Date of the actual completion of the international search

5 March 1998

Date of mailing of the international search report

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

Intern. Application No

PCT/US 97/18293

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ANDERSEN P. ET AL.: "Identification of immunodominant antigens during infection with Mycobacterium tuberculosis" SCANDINAVIAN JOURNAL OF IMMUNOLOGY, vol. 36, 1992, pages 823-831, XP002057524 ---	1,3, 5-10,12, 15,16, 18-29, 32,33, 36,37
A	WO 95 31216 A (MEDICAL RES COUNCIL ;LOWRIE DOUGLAS BRUCE (GB)) 23 November 1995 see abstract see claims ---	10,16, 18-20
A	WO 96 15241 A (MERCK & CO INC ;INNOGENETICS NV (BE); LIU MARGARET A (US); MONTGOM) 23 May 1996 see abstract see claims ---	10,16, 18-20
A	WO 96 23885 A (PASTEUR INSTITUT ;LAQUEYRERIE ANNE (FR); MARCHAL GILLES (FR); PESCE) 8 August 1996 ---	
A	WO 92 21758 A (PASTEUR INSTITUT) 10 December 1992 ---	
A	AUSUBEL ET AL.: "Current Protocols in Molecular Biology" 1993 , WILEY & SONS , US, NEW YORK XP002026411 cited in the application see page 10.19.1 - page 10.19.12 ---	
A	YOUNG ET AL.: "Screening of a recombinant mycobacterial DNA library with polyclonal antiserum and molecular weight analysis of expressed antigens" INFECTION AND IMMUNITY, vol. 55, no. 6, June 1987, pages 1421-1425, XP002026410 ---	
A	WO 94 00493 A (KAPOOR ARCHANA ;MUNSHI ANIL (US)) 6 January 1994 ---	
A	FR 2 265 402 A (MITSUI PHARMACEUTICALS) 24 October 1975 ---	
A	FR 2 244 539 A (MITSUI PHARMACEUTICALS) 18 April 1975 ---	
A	ROMAIN ET AL.: "Preparation of Tuberculin antigen L" ANN. INST. PASTEUR/MICROBIOL., vol. 136B, 1985, pages 235-248, XP002026409 ---	
	-/--	

INTERNATIONAL SEARCH REPORT

Intern: al Application No

PCT/US 97/18293

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 97 09428 A (CORIXA CORP) 13 March 1997 see abstract see page 158 - page 163; claims ---	1,3, 5-10,12, 15,16, 18-22, 24-29, 32,33,36
P,X	WO 97 09429 A (CORIXA CORP) 13 March 1997 see abstract see page 173-181; claims -----	1,3,5-8, 21,22

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 97/ 18293

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:
Remark: Although claim(s) 29 and 32
is(are) directed to a method of treatment of the human/animal
body, the search has been carried out and based on the alleged
effects of the compound/composition.
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 annex

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.:

See annex subject 1 -

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: 1, 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

A polypeptide comprising an immunogenic portion of a soluble M. tuberculosis antigen or a variant, having an N-terminal aminoacid sequence as in Seq.ID:120. A DNA molecule encoding said polypeptide as in Seq.ID:101. An expression vector comprising said DNA molecule, a host transformed with said expression vector. A pharmaceutical composition or vaccine comprising said polypeptide or said DNA molecule. Fusion protein comprising said polypeptide and pharmaceutical composition or vaccine thereof. A diagnostic kit comprising said polypeptide or fusion protein.

2. Claims: 1, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:121.

3. Claims: 1, 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:122 and 25.

4. Claims: 1, 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:123 and 24.

5. Claims: 1, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:124.

6. Claims: 1, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:125.

7. Claims: 1, 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:126 and 52.

8. Claims: 1, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:127.

9. Claims: 1, 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:128 and 99.

10. Claims: 1, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:136.

11. Claims: 2, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:129.

12. Claims: 2, 5-10, 12, 15, 16, 18-29, 31-33,
35-37 all partially.

Same as invention 1 but for Seq.ID:137 and 203.

13. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:1.

14. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:2.

15. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:4 and 17.

16. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:5.

17. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:6.

18. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:7.

19. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:8.

20. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially

Same as invention 1 but for Seq.ID:9.

21. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:10 and 13.

22. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:14.

23. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:15 and 153.

24. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:16.

25. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:18.

26. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:19.

27. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:20.

28. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:21.

29. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:22.

30. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:23.

31. Claims: 3, 5-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:99.

32. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:26.

33. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:27.

34. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:28.

35. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:29.

36. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:30.

37. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:31.

38. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:32.

39. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:33.

40. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:34.

41. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:35.

42. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:36.

43. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:37.

44. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:38.

45. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:39.

46. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:40.

47. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:41.

48. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:42.

49. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:43, 44 and 183.

50. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:45.

51. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:46 and 153.

52. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:47.

53. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:48.

54. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:49.

55. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:50.

56. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:51.

57. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:138.

58. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:139.

59. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:163.

60. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:165.

61. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:166.

62. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:167.

63. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:168.

64. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:169 and 170.

65. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:171 and 172.

66. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:173 and 174.

67. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:175 and 176.

68. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:177 and 178.

69. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:179 and 180.

70. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

Same as invention 1 but for Seq.ID:181 and 182.

71. Claims: 4-10, 12, 15, 16, 18-29, 32, 33, 36,
37 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 1 but for Seq.ID:201.

72. Claims: 11, 14, 15, 17-20, 31, 32, 35 all partially.

Pharmaceutical composition or vaccine comprising a DNA sequence as in Seq.ID:3. Vaccine comprising a polypeptide encoded by said Seq.ID:3, complement or hybridizing sequences thereof. Use of said polypeptide in diagnostic.

73. Claims: 11, 14, 15, 17-20, 31, 32, 35 all partially.

Same as invention 72 but for Seq.ID:11.

74. Claims: 11, 14, 15, 17-20, 31, 32, 35 all partially.

Same as invention 72 but for Seq.ID:12.

75. Claims: 11, 14, 15, 17-20, 31, 32, 35 all partially.

Same as invention 72 but for Seq.ID:140.

76. Claims: 11, 14, 15, 17-20, 31, 32, 35 all partially.

Same as invention 72 but for Seq.ID:141.

77. Claims: 13, 15, 20, 30, 32, 34 all partially.

Vaccine comprising a polypeptide having an N-terminal sequence as in Seq.ID:134. Use of said polypeptide in diagnostic.

78. Claims: 13, 15, 20, 30, 32, 34 all partially.

Same as invention 77 but for Seq.ID:135.

79. Claims: 31, 32, 35 all partially.

Use in diagnostic of a polypeptide encoded by a DNA sequence as in Seq.ID:156.

80. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:157.

81. Claims: 31, 32, 35 all partially.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Same as invention 79 but for Seq.ID:158.

82. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:159 and 160.

83. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:189.

84. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:190.

85. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:191.

86. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:192.

87. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:193.

88. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:199 and 200.

89. Claims: 31, 32, 35 all partially.

Same as invention 79 but for Seq.ID:203.

Polypeptides comprising an immunogenic portion of a soluble M. tuberculosis antigen are well documented in the prior art.

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