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(54) Title: HIGH AFFINITY HIV T CELL RECEPTORS

(57) Abstract: The present invention provides TCRs having an affinity (K_D) of less than or equal to $1\mu\text{M}$, and/or an off-rate (k_{off}) of $1 \times 10^{-3} \text{ s}^{-1}$ or slower, for the SLYNTVATL-HLA-A* 0201 complex PROVIDED THAT when the said TCR is presented by cell and comprises SEQ ID NOs: 1 and 2, the cell is not a native T cell. Such TCRs are useful, either alone or associated with a therapeutic agent, for targeting HIV infected cells presenting that complex.



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INTERNATIONAL SEARCH REPORT

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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	<p>WO 03/020763 A (AVIDEX LTD [GB]; JAKOBSEN BENT KARSTEN [GB]; GLICK MEIR [US]) 13 March 2003 (2003-03-13) abstract; claims 1-32</p>	<p>1-4, 15-54</p>
A	<p>LI YI ET AL: "Directed evolution of human T-cell receptors with picomolar affinities by phage display" NATURE BIOTECHNOLOGY, NATURE PUBLISHING GROUP, NEW YORK, NY, US, vol. 23, no. 3, March 2005 (2005-03), pages 349-354, XP002336795 ISSN: 1087-0156 abstract</p>	<p>1-4, 15-54</p>
A	<p>HOLLER P D ET AL: "In vitro evolution of a T cell receptor with high affinity for peptide/MHC" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE, WASHINGTON, DC, US, vol. 97, no. 10, 9 May 2000 (2000-05-09), pages 5387-5392, XP002217232 ISSN: 0027-8424 abstract</p>	<p>1-4, 15-54</p>
A	<p>ANIKEEVA NADJA ET AL: "Distinct molecular mechanisms account for the specificity of two different T-cell receptors." BIOCHEMISTRY. 29 APR 2003, vol. 42, no. 16, 29 April 2003 (2003-04-29), pages 4709-4716, XP002407870 ISSN: 0006-2960 the whole document</p>	<p>1,2,4, 15,25, 26, 31-33, 47,48</p>
P,X	<p>WO 2005/114215 A (AVIDEX LTD [GB]; DUNN STEVEN MARK [GB]; LI YI [GB]; BOULTER JONATHAN M) 1 December 2005 (2005-12-01) example 9 the whole document</p>	<p>1-4, 15-54</p>
P,X	<p>IVERSEN ASTRID K N ET AL: "Conflicting selective forces affect T cell receptor contacts in an immunodominant human immunodeficiency virus epitope." NATURE IMMUNOLOGY. FEB 2006, vol. 7, no. 2, February 2006 (2006-02), pages 179-189, XP002407871 ISSN: 1529-2908 page 182, column 1, last paragraph - column 2, paragraph 3; table 1 page 187, column 2, last paragraph - page 188, column 1, line 18</p>	<p>1,2,15, 25</p>

INTERNATIONAL SEARCH REPORT

International application No.
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Box II Observations where certain claims were found unsearchable (Continuation of item 2 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:

Although claims 49-51 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.: 5-14, 55
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:

see FURTHER INFORMATION sheet PCT/ISA/210
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 III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

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

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.:

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

Continuation of Box II.1

Although claims 49-51 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.

Continuation of Box II.2

Claims Nos.: 5-14, 55

The specific sequences of claims 5-14 and 55 have, according to PCT Rule 13ter.1.c, not been searched since the Sequence Listing as present in the description does not comply with WIPO Standard ST 25 prescribed in the administrative instructions under Rule 5.2. The Sequence Listing has been furnished neither in paper form nor in machine readable form as provided for in the same instructions and the applicant has not remedied the disclosed deficiencies within the time limit fixed in the invitation pursuant to PCT Rule 13ter.1.a.

Claim 1 has been searched because the feature following "provided that" and containing a reference to the sequence listing is not limiting the scope of the claim.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/GB2006/001147

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
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