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[Continued on next page]

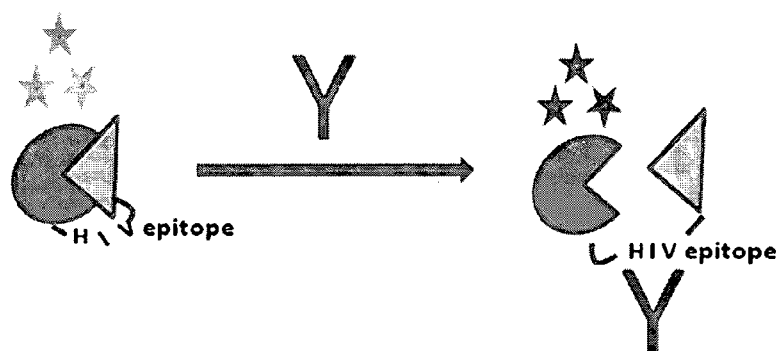
(54) Title: RECOMBINANT PROTEIN BIOSENSORS AND A METHOD FOR DETECTING THE PRESENCE OF AN ANA-
LYTE MOLECULE

Figure 1(a)

(57) Abstract: The present invention refers to a fusion protein biosensor, comprising a peptide or protein domain that binds an ana-
lyte of interest (A), an entity that can produce a detectable signal (B), and an entity that binds to B and modulate the signal pro-
duced by B when A is not bound to the analyte. A method and a kit for detecting a presence or amount of an analyte molecule using the fu-
sion protein is also disclosed.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/SG2012/000098

A. CLASSIFICATION OF SUBJECT MATTER

C07K 19/00 (2006.01) C12Q 1/25 (2006.01) G01N 33/50 (2006.01)

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 practicable, search terms used)

WPI, EPODOC, Medline, and keywords (biosensor, chromophore, fluorophore, quencher, enzyme, inhibitor, conformation, and related terms)

GenomeQuest and sequences (SEQ ID NOs: 4-5, 11, 14-15)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	Documents are listed in the continuation of Box C	

☒ Further documents are listed in the continuation of Box C
 ☒ See patent family annex

* "A"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

 Date of the actual completion of the international search
03 September 2012

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INTERNATIONAL SEARCH REPORT		International application No.
C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		PCT/SG2012/000098
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2009/117726 A2 (The Regents of The University of California) 24 September 2009 Paragraphs 0035-0038; Claims, particularly claims 1-6	1-32
X	WO 2008/109161 A2 (The Albert Einstein College of Medicine of Yeshiva University) 12 September 2008 Figure 1; SEQ ID NO:19; Paragraphs 0170-0175, 0218, 0245-0248; Pages 62-73; Claims	1-37
X	WO 2010/088411 A2 (Adlyfe, Inc.) 05 August 2010 SEQ ID NO:2, 43-49; Page 56, 75; Examples; Claims	1-37
X	US 6783958 B2 (Nakai) 31 August 2004 Columns 24-27; Claims	1-32

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.c of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of a sequence listing filed or furnished:
 - a. (means)
☐ on paper
☒ in electronic form
 - b. (time)
☐ in the international application as filed
☒ together with the international application in electronic form
☐ subsequently to this Authority for the purposes of search
2. ☒ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

INTERNATIONAL SEARCH REPORT		International application No.			
Information on patent family members		PCT/SG2012/000098			
This Annex lists known patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.					
Patent Document/s Cited in Search Report		Patent Family Member/s			
Publication Number	Publication Date	Publication Number	Publication Date		
WO 2009/117726 A2	24 Sep 2009	EP 2271662 A2	12 Jan 2011		
		US 2011117556 A1	19 May 2011		
		WO 2009117726 A2	24 Sep 2009		
WO 2008/109161 A2	12 Sep 2008	US 2008318246 A1	25 Dec 2008		
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				JP 2002153279 A	28 May 2002
JP 3650815 B2	25 May 2005				
US 2003068674 A1	10 Apr 2003				
US 6783958 B2	31 Aug 2004				
End of Annex					
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.					