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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPLEXES AND METHODS OF USING SAME

(57) Abstract: The invention provides complexes of at least two polypeptides, and methods of using the same. Purified complexes of two polypeptides are provided, including chimeric complexes, and chimeric polypeptides and complexes thereof are also provided, as are nucleic acids encoding chimeric polypeptides and vectors and cells containing the same. Also provided are methods of identifying agents that disrupt polypeptide complexes, methods of identifying complex or polypeptide in a sample, and for removing the same, methods of determining altered expression of a polypeptide in a subject, and methods of treating/preventing disorders involving altered levels of complex or polypeptide.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/04594

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 39/00

US CL : 424/192.1

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)

U.S. : 424/192.1

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)

MEDLINE, NPL, BIOSIS, DREWENT, WEST, EPA, JPA, CAPLUS
search terms: Papillomavir?, TCP?, helicase, E1^E4, pathway, trafficking

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 97/05164 A1 (CSL LIMITED) 13 February 1997, see the claims.	1-4, 10, 20
Y	WO 98/04706 A1 (CANTAB PHARMACEUTICALS RESEARCH LIMITED) 05 February 1998, see the abstract.	1-4, 10, 20
Y	US 6,306,580 B1 (PELLETIER et al) 23 October 2001, see the claims.	1-4, 10, 20
Y	ANDERSEN et al. Characterization of Skn-1a/i POU Domain Factors and Linkage to Papillomavirus Gene Expression. The Journal of Biological Chemistry. 20 June 1997, Vol. 272, No. 25, pages 15905-15913, see the entire document.	1-4, 10, 20

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

* Special categories of cited documents:	"I" 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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier document published on or after the international filing date	"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
"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)	"G" document member of the same patent family
"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	

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INTERNATIONAL SEARCH REPORT

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BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-4, 10, 20, drawn to purified polypeptide complex, pharmaceutical composition, and a method of treating. (1st composition, and method)

Group II, claim(s) 5-7, drawn to nucleic acid encoding chimeric polypeptide, and expression vector. (2nd product)

Group III, claim(s) 8, 9, drawn to antibodies. (3rd product)

Group IV, claim(s) 11-12, drawn to diagnostic kit. (4th product)

Group V, claim(s) 13-15, drawn method of identifying an agent which disrupts polypeptide complex. (2nd method)

Group VI, claim(s) 16, 17, drawn method of detecting a polypeptide in a biological sample. (3rd method)

Group VII, claim(s) 18, drawn to a method of removing a polypeptide from a biological sample. (4th method)

Group VIII, claim(s) 19, drawn to a method of determining altered expression of a polypeptide in a subject. (5th method)

Group IX, claim(s) 21-22, drawn to a method of screening for pre-cancerous cervical lesions. (6th method)

Group X, claim(s) 23-25, drawn to a method of classifying an HPV infection. (7th method)

The inventions listed as Groups I-X do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The invention of Group I is known in the prior art as evidenced by The University of Queensland (WO 97/05164) wherein the reference teaches the polypeptide complex (see the claims). The cited evidence proves that the technical feature of Group I does not make a contribution over the prior art. Thus, the claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2.