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(54) Title: COMPOSITIONS FOR USE IN IDENTIFICATION OF STRAINS OF HEPATITIS C VIRUS

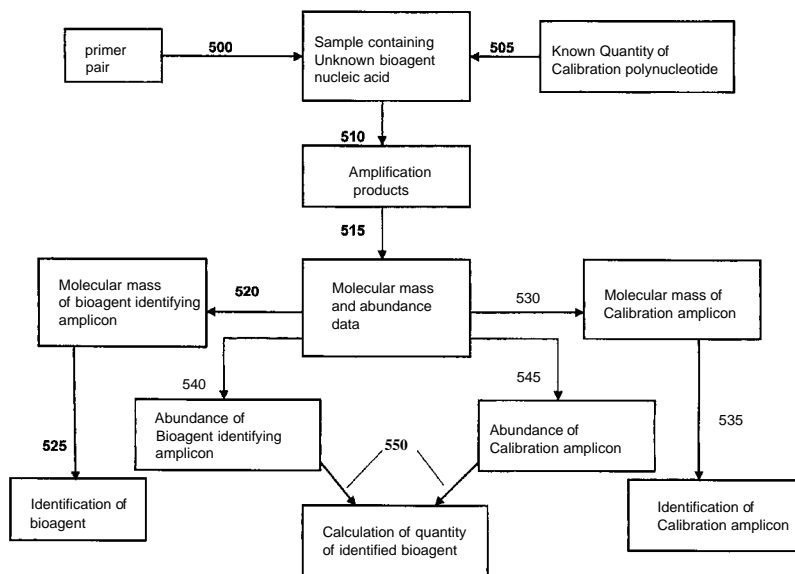


Figure 2

(57) Abstract: The present invention provides compositions, kits and methods for rapid identification and quantification of strains of hepatitis C viruses by molecular mass and base composition analysis.

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(15) Information about Correction:

Previous Correction::

see Notice of 4 June 2009

A. CLASSIFICATION OF SUBJECT MATTER*C12N 15/10(2006.01)i, C12N 15/33(2006.01)I, C12N 15/51(2006.01)I, GOIN 33/569(2006.01)I*

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 C12N 15/10, C12N 15/33, C12N 15/51, GOIN 33/569

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975
Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS (KIPO internal) & keywords hepatitis C virus

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 6638714 B1 (ORTHO CLINICAL DIAGNOSTICS LNC) 28 October 2003 See column 6, line 27 - column 22, line 17	1 - 33
A	US 5527669 A (HOFFMANN-LA ROCHE INC) 18 June 1996 See column 8, line 66 - column 30, line 20	1 - 33
A	EP 0633321 A1 (JAPAN IMMUNO INC) 11 January 1995 See the whole document	1 - 33
A	US 2006/0205040 A1 (RANGARAJAN SAMPATH) 14 September 2006 See the whole document	1 - 33

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

* Special categories of cited documents

"A" document defining the general state of the art which is not considered to be of particular relevance

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"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

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item I.b 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 type of material

a sequence listing

table(s) related to the sequence listing

b format of material

on paper

in electronic form

c time of filing/furnishing

contained in the international application as filed

filed together with the international application in electronic form

furnished 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 and/or table relating thereto 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

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6638714 B 1	28.10.2003	AU 1487900 A	10.08.2000
		CA 2296144 A 1	03.08.2000
		CN 1237186 C	18.01.2006
		EP 1026262 A2	09.08.2000
		JP 2000-279200 A	10.10.2000
		KR 10-2000-0076603	26.12.2000
		KR 10-2007-0052723	22.05.2007
		KR 20070052723 A	22.05.2007
US 5527669 A	18.06.1996	AT 161291 T	15.01.1998
		AU 665952 B2	25.01.1996
		DE 69223562 D 1	29.01.1998
		DE 69223562 T2	04.06.1998
		EP 0529493 A2	03.03.1993
		JP 06-086700	29.03.1994
		KR 10-1993-0004479	22.03.1993
		US 5580718	03.12.1996
EP 0633321 A 1	11.01.1995	CA 2125727 A 1	15.12.1994
		EP 0633321 A 1	11.01.1995
		JP 07075585 A	20.03.1995
US 2006/0205040 A 1	14.09.2006	None	