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(54) Title: NUCLEIC ACID AMPLIFICATION USING A REVERSIBLY MODIFIED OLIGONUCLEOTIDE

(57) Abstract: The present invention provides a method for amplification of a target nucleic acid sequence or signal, wherein an amplification reaction mixture is used which contains at least one reversibly modified oligonucleotide having a non-hydroxyl group 3' end which can be converted into a hydroxyl 3' end upon exposure to a chemical and/or irradiation and/or a range of temperature. The present invention also provides a reversibly modified oligonucleotide as described above, and a nucleic acid amplification reaction mixture and kit comprising such an oligonucleotide.

### INTERNATIONAL SEARCH REPORT

International application No PCT/IIS2007/017015

PCT/US2007/017015 A. CLASSIFICATION OF SUBJECT MATTER INV. C12Q1/68 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) C12Q C07H 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) EPO-Internal, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Category\* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ US 6 509 157 B1 (MARTINEZ TOMAS RAMON 1-6[US]) 21 January 2003 (2003-01-21) the whole document 7-28 X WO 02/100873 A (ISIS PHARMACEUTICALS INC 29-36 [US]; MOORE MAX N [US]; ARTHUR JOHN CHARLES [) 19 December 2002 (2002-12-19) the whole document χ US 6 355 432 B1 (FODOR STEPHEN P A [US] ET 29 - 36AL) 12 March 2002 (2002-03-12) γ column 44 - column 45 7-28 WO 94/04548 A (GILEAD SCIENCES INC [US]) A 1 - 283 March 1994 (1994-03-03) claims 1-7; figure 1 -/--

| X Further documents are listed in the continuation of Box C.  | X See patent family annex.  |
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| * 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 filling 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 filling date but later than the priority date claimed | <ul> <li>"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</li> <li>"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</li> <li>"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.</li> <li>"&amp;" document member of the same patent family</li> </ul> |
| Date of the actual completion of the international search  19 May 2008  | Date of mailing of the international search report  30/05/2008  |
| Name and mailing address of the ISA/  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016   | Authorized officer  Gabriels, Jan   |

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