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(71) Applicant (for all designated States except US): **STRATAGENE CALIFORNIA** [US/US]; 11011 North Torrey Pines Road, La Jolla, CA 92037 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SORGE, Joseph, A.** [US/US]; 144 Tenth Street, Del Mar, CA 92014 (US). **HAPPE, Scott** [US/US]; 1105 Tetbury Lane, Austin, TX 78748 (US). **FIRMIN, Andrew** [US/US]; P.O. Box 11480, Jackson, WY 83002 (US).

(74) Agent: **WILLIAMS, Kathleen, M.**; Edwards, Angell, Palmer & Dodge LLP, P.O.Box 55874, Boston, Massachusetts 02205 (US).

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(54) Title: TRIPLEX PROBE COMPOSITIONS AND METHODS FOR POLYNUCLEOTIDE DETECTION

(57) Abstract: The present invention provides composition and methods for the detection and measurement of target nucleic acids. The probes of the present invention, or triplex probes, comprise a complex of three oligonucleotide probes including: (1) a first oligonucleotide probe, (2) a second oligonucleotide probe, and (3) a bridging oligonucleotide probe. In most aspects of the invention, the first and second oligonucleotide probes preferentially hybridize to the bridging oligonucleotide in the absence of a target nucleic acid. The first oligonucleotide probe contains one member of an interactive pair of labels and the second oligonucleotide probe contains the other member of the interactive pair of labels. Separation of the first and second oligonucleotide probes (e.g., binding to target, cleavage of first, second, or bridging oligonucleotide) generates a detectable signal indicating the presence of a target nucleic acid.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/37714

A. CLASSIFICATION OF SUBJECT MATTER

IPC: C07H 21/00(2006.01),21/02(2006.01),21/04(2006.01);C12Q 1/68(2006.01)

USPC: 536/23.1,24.3,26.6;435/6

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. : 536/23.1, 24.3, 26.6; 435/6

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)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,174,670 B1 (WITTWER et al.) 16 January 2001(16.01.2001), see entire document.	1-71
Y	US 5,876,930 A (LIVAK et al) 02 March 1999(02.03.1999), see entire document.	1-71
Y	CARDULLO, R.A. et al. Detection of Nucleic Acid Hybridization by Nonradiative Fluorescence Resonance Energy Transfer. Proc. Natl. Acad. Sci. USA. 1988, Vol. 85, pages 8790-9794, see entire document.	1-71
Y	EP 0 601 889 A2 (MAINE MEDICAL CENTER RESEARCH INSTITUTE) 10 December 1993, see entire document.	1-71

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"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	"&" document member of the same patent family

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Jezia Riley

Telephone No. 571-272-1600

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Continuation of B. FIELDS SEARCHED Item 3:
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