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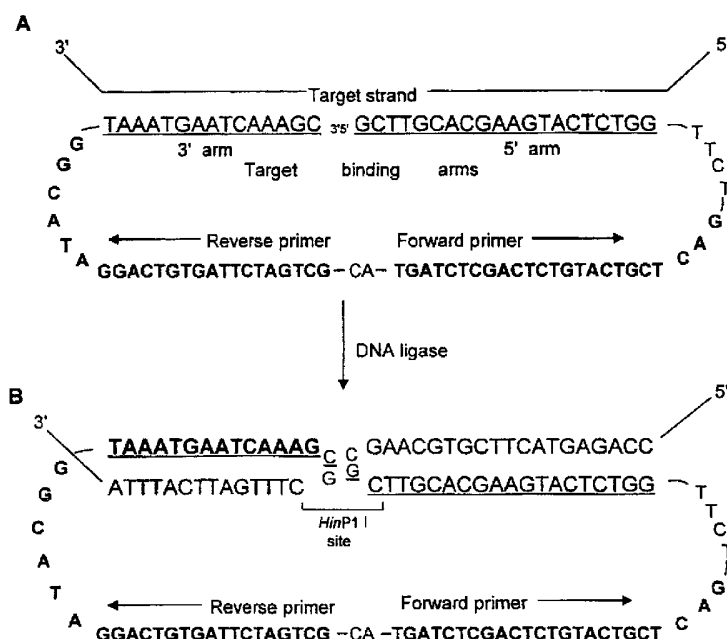
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(54) Title: CIRCULAR PROBE AMPLIFICATION (CPA) USING ENERGY-TRANSFER PRIMERS



(57) Abstract: The present invention provides methods and kits for the rapid exponential amplification of nucleic acid molecules using a padlock probe. The present invention improves upon the existing methods for amplifying padlock probes by eliminating or delaying the appearance of artifact products that cause false positive results, and also increase the sensitivity and speed of the assay. Further provided are nucleic acid amplification primers containing non-informative base analogs.



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## INTERNATIONAL SEARCH REPORT

national Application No  
PCT/EP 02/02287A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 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)  
IPC 7 C12Q

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, BIOSIS, MEDLINE, EMBASE, CHEM ABS Data, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	THOMAS D C ET AL: "AMPLIFICATION OF PADLOCK PROBES FOR DNA DIAGNOSTICS BY CASCADE ROLLING CIRCLE AMPLIFICATION OR THE POLYMERASE CHAIN REACTION" ARCHIVES OF PATHOLOGY, AMERICAN MEDICAL ASSOCIATION, CHICAGO, IL,, US, vol. 123, no. 12, December 1999 (1999-12), pages 1170-1176, XP008001739 ISSN: 0003-9985 figure 6	21-29
Y	page 1171, right-hand column, paragraph 3	30, 31,
A	page 1171, left-hand column, paragraph 2 -right-hand column, paragraph 1	56, 57, 59, 60 1-20, 33-55
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 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LIZARDI P M ET AL: "MUTATION DETECTION AND SINGLE-MOLECULE COUNTING USING ISOTHERMAL ROLLING-CIRCLE AMPLIFICATION" NATURE GENETICS, NEW YORK, NY, US, vol. 19, no. 3, July 1998 (1998-07), pages 225-232, XP000856939 ISSN: 1061-4036 page 226, left-hand column, paragraph 1 -right-hand column, paragraph 2 page 230, left-hand column, line 11, paragraph 4 -right-hand column, paragraph 1	21-25,28
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A	ALIOTTA JASON M ET AL: "Thermostable Bst DNA polymerase I lacks a 3' fwdarw 5' proofreading exonuclease activity." GENETIC ANALYSIS BIOMOLECULAR ENGINEERING, vol. 12, no. 5-6, 1996, pages 185-195, XP002231649 abstract	21-24

# INTERNATIONAL SEARCH REPORT

Information on patent family members

national Application No PCT/EP 02/02287
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