

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
11 October 2001 (11.10.2001)

PCT

(10) International Publication Number  
**WO 01/075174 A3**

(51) International Patent Classification<sup>7</sup>: C12Q 1/68, 1/70

(21) International Application Number: PCT/US01/10795

(22) International Filing Date: 3 April 2001 (03.04.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/194,304 3 April 2000 (03.04.2000) US  
60/225,524 15 August 2000 (15.08.2000) US

(71) Applicant: **CYTYC CORPORATION** [US/US]; 85 Swanson Road, Boxborough, MA 01719 (US).

(72) Inventors: **COHENFORD, Menashi, A.**; 1 Cold Spring Drive, West Warwick, RI 02893 (US). **LENTRICHIA, Brian**; 228 Parker Street, Acton, MA 01720 (US).

(74) Agent: **CAPRARO, Joseph, Jr.**; Testa, Hurwitz & Thibeault, LLP, High Street Tower, 125 High Street, Boston, MA 02110 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

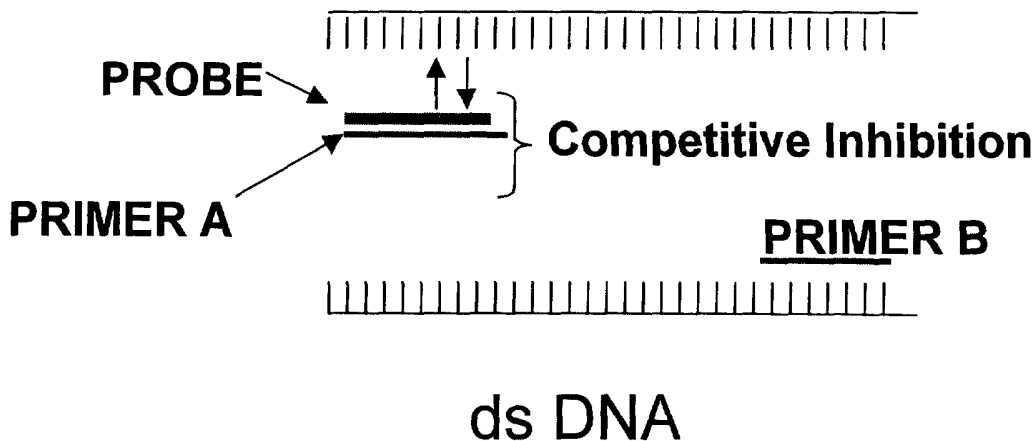
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

(88) Date of publication of the international search report:  
23 January 2003

*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: DETECTION AND TYPING OF HUMAN PAPILLOMAVIRUS USING PNA PROBES



(57) Abstract: The invention provides methods for detection and typing of HPV infection using PNA probes. More specifically, methods are provided for detecting high-risk types of HPV infection with minimal numbers of PNA probes or using PNA probes to selectively amplify only high-risk types of HPV.



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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/10795

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C12Q1/68 C12Q1/70

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, MEDLINE, PAJ, SEQUENCE SEARCH

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 14377 A (INNOGENETICS NV ;DELFTS DIAGNOSTIC LAB B V (NL); QUINT WIM (NL); K) 25 March 1999 (1999-03-25)	17, 33, 35
Y	page 13, line 19-29  abstract page 16 page 20-22; examples 3,7	1-13, 15, 16, 18-30, 32, 34, 36
Y	WO 99 61661 A (BIO MERIEUX ;LAAYOUN ALI (FR); MOUGIN BRUNO (FR)) 2 December 1999 (1999-12-02)	1-13, 15, 16, 18-30, 32, 34, 36
	page 2-3 page 7; claims page 9, line 5-7  ---	
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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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Date of the actual completion of the international search

26 August 2002

Date of mailing of the international search report

05/09/2002

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

Reuter, U

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 01/10795

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 98 17829 A (ABBOTT LAB) 30 April 1998 (1998-04-30) page 5 page 7-8</p> <p style="text-align: center;">---</p>	17, 33, 35
X	<p>FR 2 663 040 A (BIO MERIEUX) 13 December 1991 (1991-12-13) page 4; example 16</p> <p style="text-align: center;">---</p>	17, 33, 35
X	<p>WO 96 17956 A (GENE POOL INC ;WEININGER SUSAN (US); WEININGER ARTHUR M (US)) 13 June 1996 (1996-06-13) example 13</p> <p style="text-align: center;">---</p>	17, 33
Y	<p>BRULE VAN DEN A J C ET AL: "USE OF ANTICONTAMINATION PRIMERS IN THE POLYMERASE CHAIN REACTION FOR THE DETECTION OF HUMAN PAPILLOMA CIRUS GENOTYPES IN CERVICAL SCRAPES AND BIOPSIES" JOURNAL OF MEDICAL VIROLOGY, NEW YORK, NY, US, vol. 29, 1989, pages 20-27, XP000471676 page 21</p> <p style="text-align: center;">---</p>	37
Y	<p>NIELSEN P E: "Applications of peptide nucleic acids." CURRENT OPINION IN BIOTECHNOLOGY. ENGLAND FEB 1999, vol. 10, no. 1, February 1999 (1999-02), pages 71-75, XP002211072 ISSN: 0958-1669 the whole document</p> <p style="text-align: center;">---</p>	37
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