

Title (en)
METHOD IN THE FORM OF A DRY RAPID TEST FOR DETECTING NUCLEIC ACIDS

Title (de)
VERFAHREN ZUM NACHWEIS VON NUKLEINSÄUREN IN FORM EINES TROCKENSCHNELLTESTES

Title (fr)
PROCEDE POUR DETECTER DES ACIDES NUCLEIQUES AU MOYEN D'UN TEST RAPIDE A SEC

Publication
EP 1441825 A2 20040804 (DE)

Application
EP 02795061 A 20021105

Priority
• DE 10154291 A 20011105
• EP 0212333 W 20021105

Abstract (en)
[origin: WO03039703A2] The invention relates to the field of diagnostics of nucleic acids, especially to a highly sensitive method for detecting, differentiating and characterizing nucleic acids in the form of a dry rapid test. The inventive dry rapid test contains a chromatographic material that comprises a sample reception zone, a separation zone including a binding area, in which one or more sequence-specific nucleic acid probes are immobilized, and a zone which absorbs a liquid down-stream of the separation zone including a binding area. According to the inventive method, the sequence-specific nucleic acid probes are immobilized via a polymer linker. The method comprises the following steps: i) denaturing, in the case of double-stranded nucleic acids, the nucleic acid to be detected and then neutralizing it, ii) applying the nucleic acid to be detected to the sample reception zone in a run buffer which contains mildly denaturing agents, iii) the nucleic acid moving from the sample reception zone in direction of the liquid-absorbing zone, (iv) contacting the nucleic acid to be detected in the binding area of the separation path with the sequence-specific nucleic acid probe and hybridizing it with the sequence-specific nucleic acid probe, v) detecting the nucleic acid or the hybridization of the nucleic acid with the sequence-specific nucleic acid probe via a label that is attached to the nucleic acid to be detected or via the detection of a label of the nucleic acid double strand. The invention further relates to a device for carrying out the method according to the invention.

IPC 1-7
B01D 15/00; C12Q 1/68

IPC 8 full level
G01N 33/53 (2006.01); **B01D 15/00** (2006.01); **B01J 20/281** (2006.01); **B01J 20/32** (2006.01); **C12M 1/00** (2006.01); **C12M 1/34** (2006.01); **C12N 15/09** (2006.01); **C12Q 1/04** (2006.01); **C12Q 1/68** (2006.01); **C12Q 1/6834** (2018.01); **G01N 33/543** (2006.01); **G01N 33/566** (2006.01); **G01N 33/569** (2006.01); **G01N 33/58** (2006.01); **G01N 30/90** (2006.01)

CPC (source: EP US)
B01J 20/281 (2013.01 - US); **B01J 20/286** (2013.01 - EP US); **B01J 20/3204** (2013.01 - EP); **B01J 20/3212** (2013.01 - EP US); **B01J 20/3219** (2013.01 - EP US); **B01J 20/3274** (2013.01 - EP US); **B01J 20/3282** (2013.01 - US); **C12Q 1/6834** (2013.01 - EP US); **B01J 2220/54** (2013.01 - US); **G01N 30/90** (2013.01 - EP US)

C-Set (source: EP US)
C12Q 1/6834 + C12Q 2565/137

Citation (search report)
See references of WO 03039703A2

Citation (examination)
• EP 0319957 A2 19890614 - GLUETECH APS [DK]
• ELSNER H.I. ET AL: "USE OF PSORALENS FOR COVALENT IMMOBILIZATION OF BIOMOLECULES IN SOLID PHASE ASSAYS", BIOCONJUGATE CHEMISTRY, ACS, WASHINGTON, DC, US, vol. 5, no. 5, 1 September 1994 (1994-09-01), pages 463 - 467, XP000465957, ISSN: 1043-1802
• KASHIWAGI S. ET AL: "EFFICIENT COUPLING OF DNA ON A SILICA SUPPORT WITH PSORALEN DERIVATIVES AS ANCHORING AGENTS FOR HIGH-PERFORMANCE LIQUID AFFINITY CHROMATOGRAPHY", ANALYTICAL SCIENCES, JAPAN SOCIETY FOR ANALYTICAL CHEMISTRY, TOKYO, JP, vol. 8, no. 2, 1 January 1992 (1992-01-01), pages 261 - 263, XP008051040, ISSN: 0910-6340

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)
WO 03039703 A2 20030515; WO 03039703 A3 20040401; AU 2002360934 B2 20080626; CA 2465798 A1 20030515; DE 10154291 A1 20030807; DE 10154291 B4 20050519; EP 1441825 A2 20040804; JP 2005507674 A 20050324; US 2005014154 A1 20050120; ZA 200402722 B 20041108

DOCDB simple family (application)
EP 0212333 W 20021105; AU 2002360934 A 20021105; CA 2465798 A 20021105; DE 10154291 A 20011105; EP 02795061 A 20021105; JP 2003541591 A 20021105; US 49466104 A 20040505; ZA 200402722 A 20040407