

Title (en)
METHODS FOR SEPARATING SHORT SINGLE-STRANDED NUCLEIC ACID FROM LONG SINGLE- AND DOUBLE-STRANDED NUCLEIC ACID, AND ASSOCIATED BIOMOLECULAR ASSAYS

Title (de)
VERFAHREN ZUR TRENNUNG KURZER EINZELSTRANGNUKLEINSÄURE VON LANGER EINZEL- UND DOPPELSTRANGNUKLEINSÄURE SOWIE DAMIT VERBUNDENE BIOMOLEKULARE TESTS

Title (fr)
PROCEDES DE SEPARATION D'ACIDE NUCLEIQUE A BRIN UNIQUE COURT D'ACIDE NUCLEIQUE A BRIN UNIQUE ET DOUBLE LONG, ET DOSAGES BIOMOLECULAIRES ASSOCIES

Publication
EP 1848823 A2 20071031 (EN)

Application
EP 06719184 A 20060123

Priority
• US 2006002233 W 20060123
• US 64582105 P 20050121

Abstract (en)
[origin: WO2006079009A2] Methods and kits are provided for detecting the presence or absence of target nucleic acid sequences in a sample. The methods and kits involve the use of negatively charged nanoparticles and the electrostatic interactions between the metal nanoparticles and nucleic acid molecules. The methods rely upon the differential interaction of ss-nucleic acids and ds-nucleic acids with the negatively charged nanoparticles that differentiate between tagged oligonucleotide probes that hybridize with a target and those that do not. Improvements in sensitivity for a fluorescent variation of the method have been obtained by including a step of separating the ds-nucleic acids in solution from the negatively charged nanoparticles to which ss-nucleic acids have been bound, and then detecting for the presence of the ds-target nucleic acids in the solution. The same separation protocols can be used to make the detection approach viable with electrochemical or radioactive tags.

IPC 8 full level
G01N 33/00 (2006.01); **C12Q 1/68** (2006.01)

CPC (source: EP)
C12Q 1/6813 (2013.01); **C12Q 1/6816** (2013.01); **C12Q 1/6827** (2013.01); **C12Q 1/6832** (2013.01); **C12Q 1/6834** (2013.01)

C-Set (source: EP)
1. **C12Q 1/6813** + **C12Q 2563/155** + **C12Q 2563/113**
2. **C12Q 1/6816** + **C12Q 2563/155**
3. **C12Q 1/6816** + **C12Q 2527/107** + **C12Q 2565/107** + **C12Q 2565/119**
4. **C12Q 1/6827** + **C12Q 2563/155** + **C12Q 2563/113** + **C12Q 2527/107**
5. **C12Q 1/6832** + **C12Q 2563/155**
6. **C12Q 1/6834** + **C12Q 2563/155** + **C12Q 2563/113**

Cited by
CN108298502A

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

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
WO 2006079009 A2 20060727; **WO 2006079009 A3 20071108**; EP 1848823 A2 20071031; EP 1848823 A4 20080625; JP 2008527999 A 20080731

DOCDB simple family (application)
US 2006002233 W 20060123; EP 06719184 A 20060123; JP 2007552328 A 20060123