

Title (en)

METHOD FOR IDENTIFYING MISMATCH REPAIR GLYCOSYLASE REACTIVE SITES, COMPOUND AND USES THEREOF

Title (de)

VEFRAHREN ZUR IDENTIFIZIERUNG REAKTIVER SITES FÜR GLYKOSYLASE ZUR REPARATUR VON FEHLBASENPAARUNGEN, WIRKSTOFF, SOWIE VERWENDUNGEN DERSELBEN

Title (fr)

PROCEDE PERMETTANT D'IDENTIFIER LES SITES REACTIFS DES GLYCOSYLASES DE REPARATION DES MESAPPARIEMENTS, COMPOSE ET UTILISATIONS DE CE DERNIER

Publication

**EP 1060266 A4 20040922 (EN)**

Application

**EP 99908354 A 19990223**

Priority

- US 9903821 W 19990223
- US 7554298 P 19980223
- US 22422798 A 19981230

Abstract (en)

[origin: WO9942622A1] The present application discloses a method of identifying mutations in a target DNA sequence. The method involves: (a) hybridizing the target DNA sequence with a control DNA sequence wherein said control DNA sequence is the wild-type DNA sequence corresponding to the target DNA sequence to create a duplex; (b) treating the duplex to remove any spontaneous aldehydes; (c) reacting the duplex with a repair glycosylase to convert any mismatched sites in the duplex to reactive sites containing an aldehyde-containing abasic site; (d) reacting the duplex with a compound of the formula X-Z-Y, wherein X is a detectable moiety, Y is NHNH<sub>2</sub>, O-NH<sub>2</sub> or NH<sub>2</sub>, and Z is a hydrocarbon, alkylhydroxy, alkylethoxy, alkylester, alkylether, alkylamide or alkylamine, wherein Z may be substituted or unsubstituted; and wherein Z may contain a cleavable group; for a sufficient time and under conditions to covalently bind to the reactive sites; (e) detecting the bound compound to identify sites of mismatches; (f) determining where the mismatch occurs; and (g) determining whether the mismatch is a mutation or polymorphisms.

IPC 1-7

**C12Q 1/68**; **C07H 21/04**

IPC 8 full level

**G01N 33/53** (2006.01); **C07D 311/16** (2006.01); **C07D 311/82** (2006.01); **C07D 495/04** (2006.01); **C12Q 1/68** (2006.01); **G01N 37/00** (2006.01)

CPC (source: EP)

**C12Q 1/6827** (2013.01); **C12Q 1/6837** (2013.01)

Citation (search report)

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- [Y] US 5719031 A 19980217 - HAUGLAND RICHARD P [US], et al
- [Y] WO 9703210 A1 19970130 - FORFAS TRADING AS BIORESEARCH [IE], et al
- [A] EP 0122507 A2 19841024 - EURATOM [LU]
- [Y] BOTURYN D ET AL: "Synthesis of Fluorescent Probes for the Detection of Abasic Sites in DNA", TETRAHEDRON, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 53, no. 15, 14 April 1997 (1997-04-14), pages 5485 - 5492, XP004105590, ISSN: 0040-4020
- See references of WO 9942622A1

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DOCDB simple family (application)

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