

Title (en)

FUNCTIONAL ARRAYS FOR HIGH THROUGHPUT CHARACTERIZATION OF GENE EXPRESSION REGULATORY ELEMENTS

Title (de)

FUNKTIONELLE ARRAYS ZUR KENNZEICHNUNG VON ELEMENTEN ZUR GENEXPRESSIONSREGULIERUNG MIT HOHEM DURCHSATZ

Title (fr)

RESEAUX FONCTIONNELS POUR LA CARACTERISATION A GRANDE CADENCE D'ELEMENTS REGULANT L'EXPRESSION GENIQUE

Publication

**EP 2021499 A2 20090211 (EN)**

Application

**EP 06849046 A 20061208**

Priority

- US 2006046920 W 20061208
- US 75092905 P 20051216
- US 76205606 P 20060124
- US 63638506 A 20061207

Abstract (en)

[origin: WO2007078599A2] The present invention provides compositions, kits, assemblies, libraries, arrays, and high throughput methods for large scale structural and functional characterization of gene expression regulatory elements in a genome of an organism, especially in a human genome. In one aspect of the invention, an array of expression constructs is provided, each of the expression constructs comprising: a nucleic acid segment operably linked with a reporter sequence in an expression vector such that expression of the reporter sequence is under the transcriptional control of the nucleic acid segment, the nucleic acid segment varying in the library and having a diversity of at least 50. The nucleic acid segments can be a large library of gene expression regulatory elements such as transcriptional promoters. The present invention can have a wide variety of applications such as in personalized medicine, pharmacogenomics, and correlation of polymorphisms with phenotypic traits.

IPC 8 full level

**C12N 5/00** (2006.01); **C12Q 1/68** (2006.01)

CPC (source: EP)

**C12N 15/1086** (2013.01); **C12Q 1/6897** (2013.01)

Cited by

RU2671156C1; EP2835424A4; FR3088194A1; CN113265428A; JP2020522259A; US9557327B2; WO2020094865A1; WO2018111104A1; US9816108B2; US11680092B2; WO2021239307A1; US11530402B2; WO2018222792A1

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 RS

DOCDB simple family (publication)

**WO 2007078599 A2 20070712; WO 2007078599 A3 20080828; WO 2007078599 A8 20081030; WO 2007078599 A9 20071004;**  
EP 2021499 A2 20090211; EP 2021499 A4 20100217; JP 2009519710 A 20090521

DOCDB simple family (application)

**US 2006046920 W 20061208;** EP 06849046 A 20061208; JP 2008545677 A 20061208