

Title (en)

METHODS FOR DETERMINING THE BIOLOGICAL EFFECTS OF COMPOUNDS ON GENE EXPRESSION

Title (de)

VERFAHREN ZUR BESTIMMUNG DER BIOLOGISCHEN EFFEKTE VON VERBINDUNGEN AUF DIE GENEXPRESSION

Title (fr)

PROCEDES DE DETERMINATION DES EFFETS BIOLOGIQUES DE COMPOSES SUR L'EXPRESSION GENETIQUE

Publication

EP 1349961 A4 20050126 (EN)

Application

EP 01992034 A 20011109

Priority

- US 0146927 W 20011109
- US 24833900 P 20001113

Abstract (en)

[origin: WO0238734A2] Methods for determining one or more biological effects of a compound on gene expression are described. These methods involve obtaining a nuclear extract from cells exposed to a compound and then combining the nuclear extract with a nucleic acid, or library of nucleic acids, containing one or more regulatory elements under conditions that allow formation of cis/trans complexes between the regulatory elements and components (e.g., DNA binding proteins) of the nuclear extract. The complexes so formed are then compared with complexes formed using nuclear extracts obtained the same but untreated cells and the compound. Differences between the complexes formed as a result of exposure of the cells to the compound can then be assessed. The methods of the invention are preferably carried out in a high throughput format, and are useful, for example, to assess efficacy, toxicity, and mechanism of action of a compound. Accordingly, the invention will be useful in developing new drugs, and in better understanding and improving compounds already in use or under development.

IPC 1-7

C12Q 1/68

IPC 8 full level

G01N 33/68 (2006.01)

CPC (source: EP)

G01N 33/6875 (2013.01); **G01N 2333/4703** (2013.01)

Citation (search report)

- [X] US 5821053 A 19981013 - AURON PHILIP E [US], et al
- [Y] US 6066452 A 20000523 - WEISSMAN SHERMAN M [US], et al
- [Y] EP 0620439 A2 19941019 - BOEHRINGER MANNHEIM GMBH [DE]
- [Y] WO 9919510 A1 19990422 - HARVARD COLLEGE [US], et al
- [Y] US 6100035 A 20000808 - KAUFFMAN STUART A [US], et al
- [PX] EP 1136567 A1 20010926 - ADVANCED ARRAY TECHNOLOGIES S [BE]
- [Y] BULYK M L ET AL: "Quantifying DNA-protein interactions by double-stranded DNA arrays", NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, vol. 17, June 1999 (1999-06-01), pages 573 - 577, XP002168458, ISSN: 1087-0156
- [Y] DUCY P ET AL: "TWO DISTINCT OSTEOBLAST-SPECIFIC CIS-ACTING ELEMENTS CONTROL EXPRESSION OF A MOUSE OSTEOCALCIN GENE", MOLECULAR AND CELLULAR BIOLOGY, AMERICAN SOCIETY FOR MICROBIOLOGY, WASHINGTON, US, vol. 15, no. 4, April 1995 (1995-04-01), pages 1858 - 1869, XP001152915, ISSN: 0270-7306
- [PA] BULYK MARTHA L ET AL: "Exploring the DNA-binding specificities of zinc fingers with DNA microarrays", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 98, no. 13, 19 June 2001 (2001-06-19), pages 7158 - 7163, XP002174591, ISSN: 0027-8424
- See references of WO 0238734A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 0238734 A2 20020516; **WO 0238734 A3 20020711**; AU 3251002 A 20020521; CA 2431047 A1 20020516; EP 1349961 A2 20031008; EP 1349961 A4 20050126

DOCDB simple family (application)

US 0146927 W 20011109; AU 3251002 A 20011109; CA 2431047 A 20011109; EP 01992034 A 20011109