

Title (en)

METHODS FOR DELIVERING NUCLEIC ACID MOLECULES INTO CELLS AND ASSESSMENT THEREOF

Title (de)

VERFAHREN ZUR ABGABE VON NUKLEINSÄUREMOLEKÜLEN UND IHRE BEURTEILUNG

Title (fr)

TECHNIQUES D'APPORT DE MOLECULES D'ACIDES NUCLEIQUES DANS DES CELLULES ET EVALUATION DE CET APPOINT

Publication

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Application

**EP 02753692 A 20020322**

Priority

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- US 8674502 A 20020228

Abstract (en)

[origin: WO02076508A1] Methods for delivering nucleic acid molecules into cells and methods for measuring nucleic acid delivery into cells and the expression of the nucleic acids are provided. The methods are designed for introduction of large nucleic acid molecules, including artificial chromosomes, into cells, and are practiced in vitro and in vivo .

IPC 1-7

**A61K 48/00**; **A61K 49/00**; **A61B 8/00**; **A61B 10/00**; **C07H 21/00**; **C07H 21/02**; **C07H 21/04**; **C12N 5/10**; **C12N 5/14**; **C12N 5/16**; **C12N 5/22**; **C12N 13/00**; **C12N 15/00**; **C12N 15/63**; **C12N 15/65**; **C12N 15/88**; **C12N 15/74**; **C12N 15/82**; **C12N 15/85**; **C12P 21/00**; **C12P 21/02**

IPC 8 full level

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Citation (search report)

- [X] WO 9925385 A1 19990527 - IMARX PHARMACEUTICAL CORP [US]
- [X] WO 0034436 A2 20000615 - GENETRONICS INC [US], et al
- [X] WO 9400569 A1 19940106 - GENPHARM INT [US], et al
- [A] EP 0755924 A1 19970129 - STICHTING TECH WETENSCHAPP [NL], et al
- [X] RECH E L ET AL: "INTRODUCTION OF YEAST ARTIFICIAL CHROMOSOME VECTOR INTO SACCHAROMYCES-CEREVISIAE CELLS BY ELECTROPORATION", NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 18, no. 5, 20 September 1990 (1990-09-20), pages 1313, XP001155836, ISSN: 0305-1048
- [X] LEE J T ET AL: "A method for high efficiency YAC lipofection into murine embryonic stem cells", NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 24, no. 24, 1 January 1996 (1996-01-01), pages 5054 - 5055, XP002260393, ISSN: 0305-1048
- [X] OHSE MORIMASA ET AL: "A new and efficient method for gene transfer into mouse FM3A cells using metaphase chromosomes by electroporation", BIOSCIENCE BIOTECHNOLOGY AND BIOCHEMISTRY, vol. 60, no. 11, 1996, pages 1879 - 1881, XP002546668, ISSN: 0916-8451
- [X] ALLSHIRE R C: "Introduction of large linear minichromosomes into Schizosaccharomyces pombe by an improved transformation procedure", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE, WASHINGTON, DC, US, vol. 87, no. 11, 1 January 1990 (1990-01-01), pages 4043 - 4047, XP002345219, ISSN: 0027-8424
- [PX] JONG DE G ET AL: "EFFICIENT IN-VITRO TRANSFER OF A 60-MB MAMMALIAN ARTIFICIAL CHROMOSOME INTO MURINE AND HAMSTER CELLS USING CATIONIC LIPIDS AND DENDRIMERS", CHROMOSOME RESEARCH, KLUWER ACADEMIC PUBLISHERS, NL, vol. 9, no. 6, 23 April 2001 (2001-04-23), pages 475 - 485, XP009020460, ISSN: 0967-3849
- [PX] DATABASE BIOSIS [online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 1 June 2001 (2001-06-01), VANDERBYL SANDRA ET AL: "A flow cytometry technique for measuring chromosome-mediated gene transfer", XP002546669, Database accession no. PREV200100318894
- [A] JULICHER K ET AL: "Yeast Artificial Chromosome Transfer into Human Renal Carcinoma Cells by Spheroplast Fusion", GENOMICS, ACADEMIC PRESS, SAN DIEGO, US, vol. 43, no. 1, 1 July 1997 (1997-07-01), pages 95 - 98, XP004459277, ISSN: 0888-7543 & CYTOMETRY, vol. 44, no. 2, 1 June 2001 (2001-06-01), pages 100 - 105, ISSN: 0196-4763
- See references of WO 02076508A1

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