

Title (en)  
POLYAMPHOLYTES FOR DELIVERING POLYIONS TO A CELL

Title (de)  
POLYAMPHOLYTE ZUR EINBRINGUNG VON POLYIONEN IN ZELLEN

Title (fr)  
POLYAMPHOLYTES DESTINES A INTRODUIRE DES POLYIONS DANS UNE CELLULE

Publication  
**EP 1248838 A4 20040825 (EN)**

Application  
**EP 01901714 A 20010102**

Priority  
• US 0100205 W 20010102  
• US 17413299 P 19991231

Abstract (en)  
[origin: WO0149841A1] An polyampholyte is utilized in a condensed polynucleotide complex for purposes of nucleic acid delivery to a cell. The complex can be formed with an appropriate amount of positive and/or negative charge such that the resulting complex can be delivered to the extravascular space and may be further delivered to a cell.

IPC 1-7  
**C12N 15/00**; **C12N 15/88**; **C12N 15/63**; **A61K 48/00**; **A61K 9/127**

IPC 8 full level  
**A61K 47/48** (2006.01); **C12N 15/88** (2006.01)

CPC (source: EP)  
**A61K 47/58** (2017.07); **A61K 47/59** (2017.07); **A61K 47/645** (2017.07); **C12N 15/88** (2013.01)

Citation (search report)

- [PX] WO 0003694 A1 20000127 - MIRUS CORP [US]
- [E] WO 0113723 A1 20010301 - MIRUS CORP [US], et al
- [X] TRUBETSKOY V S ET AL: "Layer-by-layer deposition of oppositely charged polyelectrolytes on the surface of condensed DNA particles.", NUCLEIC ACIDS RESEARCH. 1 AUG 1999, vol. 27, no. 15, 1 August 1999 (1999-08-01), pages 3090 - 3095, XP002283256, ISSN: 1362-4962
- [X] MARUYAMA A ET AL: "Comb-type copolymers for controlled DNA delivery", NUCLEOSIDES AND NUCLEOTIDES, vol. 18, no. 6-7, June 1999 (1999-06-01), pages 1681 - 1982, XP009031843, ISSN: 0732-8311
- [A] TONCHEVA VESKA ET AL: "Novel vectors for gene delivery formed by self-assembly of DNA with poly(L-lysine) grafted with hydrophilic polymers", BIOCHIMICA ET BIOPHYSICA ACTA, vol. 138, no. 3, 8 May 1998 (1998-05-08), pages 354 - 368, XP002283258, ISSN: 0006-3002
- [A] REMY JEAN-SERGE ET AL: "Gene transfer with lipospermines and polyethylenimines", ADVANCED DRUG DELIVERY REVIEWS, vol. 30, no. 1-3, 2 March 1998 (1998-03-02), pages 85 - 95, XP002283259, ISSN: 0169-409X
- See references of WO 0149841A1

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 0149841 A1 20010712**; EP 1248838 A1 20021016; EP 1248838 A4 20040825

DOCDB simple family (application)  
**US 0100205 W 20010102**; EP 01901714 A 20010102