

Title (en)
HUMAN FIBROBLAST GROWTH FACTOR RECEPTOR 1 IS A CO-RECEPTOR FOR INFECTION BY ADENO-ASSOCIATED VIRUS 2

Title (de)
MENSCHLICHER FIBROBLASTEN-WACHSTUMSFAKTOR-REZEPTOR 1 ALS CO-REZEPTOR ZUR INFEKTION MIT EINEM ADENO-ASSOZIIERTEM VIRUS

Title (fr)
RECEPTEUR HUMAIN DU FACTEUR DE CROISSANCE DES FIBROBLASTES UTILISE COMME CO-RECEPTEUR DANS L'INJECTION DU VIRUS 2 ASSOCIE AUX ADENOVIRUS

Publication
EP 1141339 A4 20020417 (EN)

Application
EP 99968572 A 19991229

Priority

- US 9931220 W 19991229
- US 11459698 P 19981231

Abstract (en)
[origin: WO0039311A1] The present invention relates generally to the fields of gene therapy. More particularly, it concerns gene transfer using adeno-associated virus and methods of increasing transcription and promoting replication of transgenes. The present invention shows that AAV requires human fibroblast growth factor receptor 1 (FGFR1) as a co-receptor for successful viral entry into the host cell. Methods and compositions for exploiting this finding in AAV vector-mediated gene therapy are disclosed.

IPC 1-7
C12N 15/63; C12N 15/64; C12N 15/864; C12N 15/12; C12N 5/10; A61K 48/00

IPC 8 full level
C12N 15/09 (2006.01); **A61K 31/7084** (2006.01); **A61K 31/7088** (2006.01); **A61K 35/76** (2006.01); **A61K 48/00** (2006.01); **A61P 1/00** (2006.01); **A61P 1/16** (2006.01); **A61P 1/18** (2006.01); **A61P 7/00** (2006.01); **A61P 11/00** (2006.01); **A61P 13/08** (2006.01); **A61P 13/12** (2006.01); **A61P 15/00** (2006.01); **A61P 17/00** (2006.01); **A61P 19/00** (2006.01); **A61P 35/00** (2006.01); **C07K 14/71** (2006.01); **C12N 15/12** (2006.01); **C12N 15/864** (2006.01)

CPC (source: EP)
A61K 48/00 (2013.01); **A61P 1/00** (2017.12); **A61P 1/16** (2017.12); **A61P 1/18** (2017.12); **A61P 7/00** (2017.12); **A61P 11/00** (2017.12); **A61P 13/08** (2017.12); **A61P 13/12** (2017.12); **A61P 15/00** (2017.12); **A61P 17/00** (2017.12); **A61P 19/00** (2017.12); **A61P 35/00** (2017.12); **C07K 14/71** (2013.01); **C12N 15/86** (2013.01); **C12N 2750/14143** (2013.01)

Citation (search report)

- [Y] WO 9500633 A2 19950105 - CHILDRENS MEDICAL CENTER [US], et al
- [Y] WO 9200999 A1 19920123 - RORER INT HOLDINGS [US]
- [Y] WO 9403620 A2 19940217 - CHIRON CORP [US]
- [A] WO 9811221 A2 19980319 - DANA FARBER CANCER INST INC [US]
- [PX] WO 9911652 A1 19990311 - ADVANCED RES & TECH INST [US], et al
- [Y] DATABASE BIOSIS [online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 15 November 1998 (1998-11-15), QING K Y ET AL: "Human fibroblast growth factor receptor 1 is a co-receptor for infection by adeno-associated virus 2.", XP002190087, Database accession no. PREV199900108041 & BLOOD, vol. 92, no. 10 SUPPL. 1 PART 1-2, 15 November 1998 (1998-11-15), 40th Annual Meeting of the American Society of Hematology; Miami Beach, Florida, USA; December 4-8, 1998, pages 150A, ISSN: 0006-4971
- [YD] C. MAH ET AL.: "Adeno-associated virus type 2-mediated gene transfer : Role of epidermal growth factor receptor protein tyrosine kinase in transgene expression", J VIROLOGY, vol. 72, no. 12, December 1998 (1998-12-01), pages 9835 - 9843, XP002190083
- [YD] K. QING ET AL.: "Adeno-associated virus type 2-mediated gene transfer : Correlation of tyrosine phosphorylation of the cellular single-stranded D sequence-binding protein with transgene expression in human cells in vitro and murine tissues in vivo", J VIROLOGY, vol. 72, no. 2, February 1998 (1998-02-01), pages 1593 - 1599, XP002190084
- [YD] C. SUMMERFORD AND RJ SAMULSKI: "Membrane-associated heparan sulfate proteoglycan is a receptor for adeno-associated virus type 2 virions", J VIROLOGY, vol. 72, no. 2, February 1998 (1998-02-01), pages 1438 - 1445, XP002190085
- [PX] K. QING ET AL.: "Human fibroblast growth factor receptor 1 is a co-receptor for infection by adeno-associated virus 2", NATURE MEDICINE, vol. 5, no. 1, January 1999 (1999-01-01), pages 71 - 77, XP002190086
- See references of WO 0039311A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0039311 A1 20000706; AU 2596400 A 20000731; CA 2358094 A1 20000706; EP 1141339 A1 20011010; EP 1141339 A4 20020417; JP 2002533128 A 20021008

DOCDB simple family (application)
US 9931220 W 19991229; AU 2596400 A 19991229; CA 2358094 A 19991229; EP 99968572 A 19991229; JP 2000591202 A 19991229