

Title (en)

A SERUM-FREE VIRUS PROPAGATION PLATFORM FOR A VIRUS VACCINE CANDIDATE

Title (de)

SERUMFREIE VIRENVERMEHRUNGSPLATTFORM FÜR EINEN VIRENIMPFSTOFFKANDIDATEN

Title (fr)

PLATEFORME DE PROPAGATION VIRALE SANS SÉRUM UTILISÉE COMME CANDIDATE DE VACCIN ANTI-VIRAL

Publication

EP 2076603 A4 20110511 (EN)

Application

EP 07853807 A 20071005

Priority

- US 2007080610 W 20071005
- US 86255006 P 20061023
- US 2007066037 W 20070405
- US 94416207 P 20070615
- US 97392107 P 20070920

Abstract (en)

[origin: WO2008051698A2] The invention relates to methods for propagating viruses. In particular, the invention provides optimized conditions for propagating viruses. Optimization of the following parameters are provided: lipid concentrates as supplements to the medium, temperature shift from pre-infection to post-infection, multiplicity of infection, direct bead-to-bead transfer and serum supplementation of pre-infection medium. In particular, the invention provides for the first time a method for propagating a virus by culturing cells that are infected with the virus in a medium comprising chemically defined lipid concentrate (CDLC). In another claim, the CDLC is added to medium that is substantially free of serum for culture of virus-infected cells.

IPC 8 full level

A61K 39/155 (2006.01); **C07K 14/115** (2006.01); **C07K 14/135** (2006.01); **C12N 7/02** (2006.01); **C12N 15/85** (2006.01); **C12N 15/86** (2006.01)

CPC (source: EP KR)

A61K 39/12 (2013.01 - EP); **A61K 39/155** (2013.01 - EP); **C12N 7/00** (2013.01 - EP KR); **C12N 7/08** (2013.01 - KR); **C12N 15/85** (2013.01 - KR); **A61K 2039/5256** (2013.01 - EP); **C12N 2760/18534** (2013.01 - EP); **C12N 2760/18552** (2013.01 - EP); **C12N 2760/18634** (2013.01 - EP); **C12N 2760/18651** (2013.01 - EP); **C12N 2760/18652** (2013.01 - EP)

Citation (search report)

- [L] WO 2007118134 A2 20071018 - MEDIMMUNE INC [US], et al
- [X] WU S-C ET AL: "Optimization of microcarrier cell culture process for the inactivated enterovirus type 71 vaccine development", VACCINE, ELSEVIER LTD, GB, vol. 22, no. 29-30, 28 September 2004 (2004-09-28), pages 3858 - 3864, XP004567461, ISSN: 0264-410X, DOI: 10.1016/J.VACCINE.2004.05.037
- [X] TRABELSI K ET AL: "Comparison of various culture modes for the production of rabies virus by Vero cells grown on microcarriers in a 2-l bioreactor", ENZYME AND MICROBIAL TECHNOLOGY, STONEHAM, MA, US, vol. 36, no. 4, 2 March 2005 (2005-03-02), pages 514 - 519, XP025278458, ISSN: 0141-0229, [retrieved on 20050302], DOI: 10.1016/J.ENZMICTEC.2004.11.008
- [X] FRAZZATTI-GALLINA N M ET AL: "Vero-cell rabies vaccine produced using serum-free medium", VACCINE, ELSEVIER LTD, GB, vol. 23, no. 4, 9 December 2004 (2004-12-09), pages 511 - 517, XP004629187, ISSN: 0264-410X, DOI: 10.1016/J.VACCINE.2004.06.014
- [X] FRAZZATTI-GALLINA N M ET AL: "Higher production of rabies virus in serum-free medium cell cultures on microcarriers", JOURNAL OF BIOTECHNOLOGY, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 92, no. 1, 15 November 2001 (2001-11-15), pages 67 - 72, XP027295856, ISSN: 0168-1656, [retrieved on 20011115]
- [A] SÉBASTIEN QUESNEY ET AL: "Kinetics and metabolic specificities of Vero cells in bioreactor cultures with serum-free medium", CYTOTECHNOLOGY, KLUWER ACADEMIC PUBLISHERS, DO, vol. 42, no. 1, 1 May 2003 (2003-05-01), pages 1 - 11, XP019236782, ISSN: 1573-0778, DOI: 10.1023/A:1026185615650
- [XP] INN H YUK ET AL: "A serum-free Vero production platform for a chimeric virus vaccine candidate", CYTOTECHNOLOGY, KLUWER ACADEMIC PUBLISHERS, DO, vol. 51, no. 3, 16 November 2006 (2006-11-16), pages 183 - 192, XP019448504, ISSN: 1573-0778, DOI: 10.1007/S10616-006-9030-7
- [T] BARRETT P NOEL ET AL: "Vero cell platform in vaccine production: moving towards cell culture-based viral vaccines", EXPERT REVIEW OF VACCINES, UK, vol. 8, no. 5, 1 May 2009 (2009-05-01), pages 607 - 618, XP009128183, ISSN: 1744-8395, DOI: 10.1586/ERV.09.19
- See references of WO 2008051698A2

Citation (examination)

B. NAGEL ET AL: "GLOSSARY FOR CHEMISTS OF TERMS USED IN BIOTECHNOLOGY (IUPAC Recommendations 1992)", PURE & APPL. CHEM., vol. 64, no. 1, 1 January 1992 (1992-01-01), Great Britain, pages 143 - 148, XP055073736

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 MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008051698 A2 20080502; WO 2008051698 A3 20080710; BR PI0717469 A2 20140408; EP 2076603 A2 20090708; EP 2076603 A4 20110511; JP 2010507363 A 20100311; KR 20090084859 A 20090805

DOCDB simple family (application)

US 2007080610 W 20071005; BR PI0717469 A 20071005; EP 07853807 A 20071005; JP 2009533438 A 20071005; KR 20097009590 A 20071005