

Title (en)

METHODS FOR INCREASING PROTEIN TITERS

Title (de)

VERFAHREN ZUR STEIGERUNG VON PROTEINTITERN

Title (fr)

PROCÉDÉS D'AUGMENTATION DE TITRES DE PROTÉINES

Publication

**EP 2195431 A1 20100616 (DE)**

Application

**EP 08803328 A 20080828**

Priority

- EP 2008061310 W 20080828
- EP 07115227 A 20070829
- EP 08803328 A 20080828

Abstract (en)

[origin: EP2031064A1] Increasing the titer of a cellular protein comprises modifying a nucleic acid coding for the protein by deleting the codon coding for the C-terminal amino acid, transfecting a cell with a vector containing the modified nucleic acid, and culturing the cell. Independent claims are also included for: (1) producing an expression vector for increased production of a protein by modifying a nucleic acid as above and inserting it into an expression vector; (2) producing a cell with an increased protein titer by treating a group of cells as above and performing single cell cloning; (3) producing a protein in a cell by treating a group of cells as above, selecting the cells in the presence of a selection pressure, optionally performing single cell cloning, and isolating the protein from the cells or their culture supernatant; (4) expression vector produced as above; (5) cell produced as above; (6) producing and purifying a protein with reduced heterogeneity by modifying a nucleic acid as above.

IPC 8 full level

**C12N 15/13** (2006.01); **C07K 14/505** (2006.01); **C07K 16/00** (2006.01); **C12N 9/72** (2006.01); **C12N 15/85** (2006.01)

CPC (source: EP US)

**C07K 16/00** (2013.01 - EP US); **C07K 16/40** (2013.01 - EP US); **C07K 2317/24** (2013.01 - EP US); **C07K 2317/52** (2013.01 - EP US)

Citation (search report)

See references of WO 2009027471A1

Citation (examination)

- WO 2007008712 A2 20070118 - BIOGEN IDEC INC [US], et al
- LUCAS B K ET AL: "High-level production of recombinant proteins in CHO cells using a dicistronic DHFR intron expression vector", NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB LNKD- DOI:10.1093/NAR/24.9.1774, vol. 24, no. 9, 1 May 1996 (1996-05-01), pages 1774 - 1779, XP002981239, ISSN: 0305-1048
- LÖFFERT D. ET. AL.: "QIAGEN News", no. 4, 1997, Retrieved from the Internet <URL:http://www.qiagen.com/literature/qiagennews/0497/974impro.pdf> [retrieved on 20110721]

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

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DOCDB simple family (application)

**EP 07115227 A 20070829**; CA 2696809 A 20080828; EP 08803328 A 20080828; EP 2008061310 W 20080828; JP 2010522371 A 20080828; KR 20107004046 A 20080828; US 67521808 A 20080828