

Title (en)
IN VITRO PROTEIN SYNTHESIS SYSTEMS FOR MEMBRANE PROTEINS THAT INCLUDE APOLIPOPROTEINS AND PHOSPHOLIPID-
APOLIPOPROTEIN PARTICLES

Title (de)
IN-VITRO-PROTEINSYNTHESESYSTEME FÜR MEMBRANPROTEINE MIT APOLIPOPROTEINEN UND PHOSPHOLIPID-
APOLIPOPROTEINPARTIKELN

Title (fr)
SYSTEMES DE SYNTHÈSE DE PROTÉINES IN VITRO DESTINÉS À DES PROTÉINES MEMBRANAIRES COMPRENANT DES
APOLIPOPROTÉINES ET DES PARTICULES DE PHOSPHOLIPIDE-APOLIPOPROTÉINES

Publication
EP 1929031 A4 20120111 (EN)

Application
EP 06825266 A 20060927

Priority

- US 2006038173 W 20060927
- US 72133905 P 20050927
- US 53596005 A 20050927
- US 72421305 P 20051004
- US 81569506 P 20060621
- US 81575006 P 20060621

Abstract (en)
[origin: WO2007038755A1] In vitro protein synthesis systems and methods are provided that produce membrane proteins in soluble form. In some aspects, the invention provides methods of synthesizing proteins using in vitro protein synthesis systems that include an apolipoprotein, in which higher yields of soluble protein are produced than in the absence of the apolipoprotein. Apolipoproteins useful in the present invention include naturally occurring apolipoproteins, as well as sequence variants of wild-type apolipoproteins, and engineered apolipoproteins. The apolipoproteins can be provided in an in vitro protein synthesis system associated with lipid or not associated with lipid. The invention also provides compositions and kits for synthesis of proteins in soluble form, in which the compositions and kits include cell extracts for protein translation and at least one apolipoprotein biomolecule.

IPC 8 full level
C12P 21/02 (2006.01); **C12N 1/00** (2006.01)

CPC (source: EP)
C07K 14/775 (2013.01); **C12P 21/02** (2013.01)

Citation (search report)

- [XP] WO 2006039622 A2 20060413 - INVITROGEN CORP [US], et al
- [E] WO 2008106660 A2 20080904 - INVITROGEN CORP [US], et al
- [Y] CIVJAN N R ET AL: "Direct solubilization of heterologously expressed membrane proteins by incorporation into nanoscale lipid bilayers", BIOTECHNIQUES, INFORMA HEALTHCARE, US, vol. 35, no. 3, 1 September 2003 (2003-09-01), pages 556 - 563, XP001538917, ISSN: 0736-6205
- [Y] KLAMMT C ET AL: "High level cell-free expression and specific labeling of integral membrane proteins", EUROPEAN JOURNAL OF BIOCHEMISTRY, BLACKWELL PUBLISHING, BERLIN, DE, vol. 271, no. 3, 1 January 2004 (2004-01-01), pages 568 - 580, XP008105291, ISSN: 0014-2956, [retrieved on 20040109], DOI: 10.1111/J.1432-1033.2003.03959.X
- See references of WO 2007038755A1

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 NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007038755 A1 20070405; EP 1929031 A1 20080611; EP 1929031 A4 20120111; JP 2009521209 A 20090604

DOCDB simple family (application)
US 2006038173 W 20060927; EP 06825266 A 20060927; JP 2008533693 A 20060927