

Title (en)

SURFACE EXPRESSION SYSTEM OF HEPATITIS B VIRUS SURFACE ANTIGEN AND CORE ANTIGEN OF HEPATITIS C VIRUS BY USING ICE-NUCLEATION PROTEIN

Title (de)

OBERFLÄCHENEXPRESSIONSSYSTEM VON HEPATITIS B VIRUS OBERFLÄCHENANTIGEN UND KERNANTIGEN VON HEPATITIS C VIRUS UNTER VERWENDUNG VON EIS-KERN PROTEIN

Title (fr)

SYSTEME D'EXPRESSION DE SURFACE DE L'ANTIGENE DE SURFACE ET DE L'ANTIGENE CAPSIDIQUE DU VIRUS DE L'HEPATITE B AU MOYEN D'UNE PROTEINE DE NUCLEATION DE LA GLACE

Publication

**EP 1012245 A1 20000628 (EN)**

Application

**EP 99928212 A 19990625**

Priority

- KR 9900339 W 19990625
- KR 19980024062 A 19980625
- KR 19990024244 A 19990625

Abstract (en)

[origin: WO9967366A1] Disclosed is the expression of foreign proteins on the surfaces of microorganisms. Antigenic proteins originating from pathogens, including the surface HBsAg and the core antigen of HCV, can be effectively expressed on microbial cell surfaces by use of ice-nucleation proteins. The microbes which have the antigenic proteins on their surfaces can be used as attenuated, complex live vaccines.

IPC 1-7

**C12N 7/01; C12N 15/31; C12N 1/21**

IPC 8 full level

**C12N 15/63** (2006.01); **C07K 14/02** (2006.01); **C07K 14/21** (2006.01); **C12N 1/21** (2006.01); **C12N 7/01** (2006.01); **C12N 15/70** (2006.01);  
A61K 39/00 (2006.01)

CPC (source: EP KR US)

**C07K 14/005** (2013.01 - EP); **C07K 14/21** (2013.01 - EP); **C12N 15/63** (2013.01 - KR); **C12N 15/70** (2013.01 - EP);  
A61K 39/00 (2013.01 - EP KR US); **C07K 2319/00** (2013.01 - EP); **C12N 2730/10122** (2013.01 - EP); **Y02A 50/30** (2018.01 - EP)

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 9967366 A1 19991229**; AU 4531899 A 20000110; EP 1012245 A1 20000628; KR 2000006463 A 20000125

DOCDB simple family (application)

**KR 9900339 W 19990625**; AU 4531899 A 19990625; EP 99928212 A 19990625; KR 19990024244 A 19990625