

Title (en)
SURFACE PROTEIN (SPsA PROTEIN) OF STREPTOCOCCUS PNEUMONIAE, DELETED DERIVATIVES, EXPRESSION SYSTEM FOR SAID PROTEINS AND VACCINE SYSTEM WITH SAID PROTEINS

Title (de)
OBERFLÄCHENPROTEIN (SPSA-PROTEIN) VON \$(STREPTOCOCCUS PNEUMONIAE) DELIERTE ABKÖMMLINGE, EXPRESSIONSSYSTEM FÜR DIESE PROTEINE UND VACCINE MIT DEN PROTEINEN

Title (fr)
PROTEINE DE SURFACE (PROTEINE SpsA) EXTRAITE DE STREPTOCOCCUS PNEUMONIAE, DERIVES DELETEDES, SYSTEME D'EXPRESSION POUR LESDITES PROTEINES, ET VACCINS LES CONTENANT

Publication
EP 0991762 A2 20000412 (DE)

Application
EP 98916880 A 19980302

Priority
• DE 19708537 A 19970303
• EP 9801149 W 19980302

Abstract (en)
[origin: DE19708537A1] The invention relates to a novel surface protein (SPsA protein) of streptococcus pneumoniae, deleted derivatives of the surface protein, an expression system for the surface protein and its derivatives as well as a vaccine that uses them.

IPC 1-7
C12N 15/31; **C07K 14/315**; **A61K 39/09**; **C12N 15/70**

IPC 8 full level
C12N 15/09 (2006.01); **A61K 39/09** (2006.01); **A61P 31/04** (2006.01); **C07K 14/315** (2006.01); **C12N 1/21** (2006.01); **C12N 15/31** (2006.01); **A61K 39/00** (2006.01); **C12R 1/19** (2006.01)

CPC (source: EP US)
A61P 31/04 (2018.01 - EP); **C07K 14/3156** (2013.01 - EP); **A61K 39/00** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB IT LI LU NL SE

DOCDB simple family (publication)
DE 19708537 A1 19980910; EP 0991762 A2 20000412; JP 2001524073 A 20011127; WO 9839450 A2 19980911; WO 9839450 A3 19981105

DOCDB simple family (application)
DE 19708537 A 19970303; EP 9801149 W 19980302; EP 98916880 A 19980302; JP 53813798 A 19980302