

Title (en)
METHOD FOR PRODUCING HETEROLOGOUS PROTEINS.

Title (de)
VERFAHREN ZUR HERSTELLUNG HETEROLOGER PROTEINE.

Title (fr)
PROCEDE DE PRODUCTION DE PROTEINES HETEROLOGUES.

Publication
EP 0241546 A4 19881102 (EN)

Application
EP 86906613 A 19861010

Priority
US 78674985 A 19851011

Abstract (en)
[origin: WO8702385A1] Method for producing a heterologous protein in a bacterial host cell such that the protein is exported from the host cell into the culture medium. The method involves culturing in a bacterial culture medium a genetically engineered bacterial strain containing a fusion DNA sequence comprising a first nucleotide sequence encoding at least an N-terminal portion of a flagellin protein and a second nucleotide sequence encoding the heterologous protein. The first nucleotide sequence is linked via its 3' terminus to the 5' terminus of the second nucleotide sequence, and the fusion DNA sequence is itself linked to an expression control sequence. In certain embodiments the first and second nucleotide sequences are linked by means of a linking nucleotide sequence encoding a selectively cleavable polypeptide. In those embodiments the resulting exported fusion protein will contain a selectively cleavable site at which the fusion protein may be selectively cleaved by chemical or enzymatic methods to produce the heterologous protein encoded for by the second nucleotide sequence of the fusion DNA sequence. The heterologous protein may then be separately recovered from any polypeptide fragment of flagellin or other proteinaceous material.

IPC 1-7
C07K 7/40; C12P 21/00

IPC 8 full level
C12N 15/09 (2006.01); **C07K 14/32** (2006.01); **C07K 14/62** (2006.01); **C12N 15/90** (2006.01); **C12P 21/00** (2006.01); **C12R 1/01** (2006.01); **C12R 1/125** (2006.01); **C12R 1/19** (2006.01)

CPC (source: EP)
C07K 14/32 (2013.01); **C07K 14/62** (2013.01); **C12N 15/90** (2013.01); **C07K 2319/00** (2013.01); **C07K 2319/02** (2013.01); **C07K 2319/036** (2013.01); **C07K 2319/50** (2013.01); **C07K 2319/75** (2013.01)

Citation (search report)
• [Y] US 4338397 A 19820706 - GILBERT WALTER, et al
• [Y] WO 8404756 A1 19841206 - CELLTECH LTD [GB]
• [A] EP 0157235 A1 19851009 - BAYER AG [DE]
• [Y] EP 0124374 A1 19841107 - GENEX CORP [US]
• [E] EP 0237045 A2 19870916 - SHIONOGI & CO [JP]
• [Y] JOURNAL OF BACTERIOLOGY, vol. 139, no. 3, September 1979, pages 721-729; Y. KOMEDA et al.: "Regulation of expression of the flagellin gene (hag) in Escherichia coli K-12: Analysis of hag-lac gene fusions"
• [XD] JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 254, no. 3, 10th February 1976, pages 705-711, US; R.J. DELANGE et al.: "Amino acid sequence of flagellin of Bacillus subtilis 168"
• [A] PROC. NATL. ACAD. SCI. USA, vol. 79, November 1982, pages 6847-6851; M. MILHAUSEN et al.: "Cloning of developmentally regulated flagellin genes from Caulobacter crescentus via immunoprecipitation of polyribosomes"
• See references of WO 8702385A1

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

DOCDB simple family (publication)
WO 8702385 A1 19870423; EP 0241546 A1 19871021; EP 0241546 A4 19881102; JP S63501053 A 19880421

DOCDB simple family (application)
US 8602168 W 19861010; EP 86906613 A 19861010; JP 50574386 A 19861010