

Title (en)
GENES FROM CORYNEBACTERIUM GLUTAMICUM FOR THE BIOSYNTHESIS OF FOLIC ACID AND THEIR USE FOR THE MICROBIAL PRODUCTION OF FOLIC ACID

Title (de)
GENE AUS CORYNEBACTERIUM GLUTAMICUM FÜR DIE FOLSÄUREBIOSYNTHESE UND IHR EINSATZ ZUR MIKROBIELLEN HERSTELLUNG VON FOLSÄURE

Title (fr)
GENES DE CORYNEBACTERIUM GLUTAMICUM POUR LA BIOSYNTHESE DE L'ACIDE FOLIQUE ET LEUR UTILISATION POUR LA PRODUCTION MICROBIENNE D'ACIDE FOLIQUE

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Application
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Abstract (en)
[origin: DE19929363A1] Corynebacterium glutamicum GTP cyclohydrolase I, dihydropteroate synthase, dihydroneopterin aldolase and 2-amino-4-hydroxy-6-hydroxymethyl-dihydropteridine pyrophosphokinase polypeptides, are new. The following polypeptides are new: (i) a polypeptide with GTP cyclohydrolase I activity having a defined sequence of 202 amino acids given in the specification, optionally with one or more amino acid deletions, insertions or substitutions; (ii) a polypeptide dihydropteroate synthase activity having a defined sequence of 285 amino acids given in the specification, optionally with one or more amino acid deletions, insertions or substitutions; (iii) a polypeptide with dihydroneopterin aldolase activity having a defined sequence of 131 amino acids given in the specification, optionally with one or more amino acid deletions, insertions or substitutions; and (iv) a polypeptide with 2-amino-4-hydroxy-6-hydroxymethyl-dihydropteridine pyrophosphokinase activity having a defined sequence of 160 amino acids given in the specification, optionally with one or more amino acid deletions, insertions or substitutions. Independent claims are also included for the following: (1) a polynucleotide encoding one of the polypeptides; (2) a gene construct comprising at least one copy of the polynucleotide of (1) together with at least one regulatory sequence; (3) a host organism transformed with the gene construct of (2); (4) production of folic acid by culturing the organism of (3).

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