Creative Enzymes®

Native Pseudomonas sp. Carboxypeptidase G

Cat. No. NATE-0102

Lot. No. (See product label)

Introduction

Description	Carboxypeptidase G is a lysosomal, thiol-dependent protease, which progressively cleaves γ-glutamyl pteroyl poly-γ-glutamate yielding pteroyl-α-glutamate (folic acid) and free glutamate. It is considered highly specific for the γ-glutamyl bond, but not for the C-terminal amino acid of the leaving group.1 Molecular mass of this homodimer is approximately 90 kDa. The enzyme is activated by Zn2+ ions.
Applications	Carboxypeptidase G from Pseudomonas sp., or γ-Glutamyl hydrolase, has been used in a study to assess the role of the putidaredoxin COOH-terminus in P-450cam (cytochrome m) hydroxylations. Carboxypeptidase G from Pseudomonas sp. has also been used in a study to investigate the effects of nitric oxide on pemetrexed cytotoxicity via NO-cGMP signaling in lung adenocarcinoma cells.
Synonyms	γ-Glutamyl hydrolase; EC 3.4.17.11; 9074-87-7; glutamate carboxypeptidase; carboxypeptidase G; carboxypeptidase G1; carboxypeptidase G2; glutamyl carboxypeptidase; N-pteroyl-L-glutamate hydrolase

Product Information

Source	Pseudomonas sp.
Form	lyophilized powder contains sodium acetate salt.
EC Number	EC 3.4.17.11
CAS No.	9074-87-7
Activity	> 3 units/mg protein
Composition	Protein, ~70% biuret
Unit Definition	One unit will hydrolyze 1.0 μmole of L-glutamic acid from (+)amethopterin per min at pH 7.3 at 30°C.

Storage and Shipping Information

Storage	−20°C