Creative Enzymes®

Native Human Carboxypeptidase B

Cat. No. NATE-0151

Lot. No. (See product label)

Introduction

Description	Carboxypeptidase B (or peptidyl-L-lysine (-L-arginine) hydrolase) catalyzes the hydrolysis of the basic amino acids, lysine, arginine, and ornithine from the C-terminal position of polypeptides. It has been shown to be a single polypeptide of 34 kDa Da. Trypsin is capable of converting native enzyme to the active enzyme, carboxypeptidase B II in vitro. The optimum pH is found to be 9.0. The enzyme may be used for sequence analysis by successive cleavage of C-terminal basic amino acids. It can also be used as a serum marker for the diagnosis of acute pancreatitis.
Applications	Carboxypeptidase B from Creative Enzymes has been used as a reference for assaying carboxypeptidase activity in lysed pituitary granules derived from the anterior and intermediate lobes of rat. The enzyme has also been used to digest plasma samples by removing C-terminal basic amino acids, to get a distinct band for each allotype during C4 electrophoresis.
Synonyms	carboxypeptidase B; protaminase; CPB1; pancreatic carboxypeptidase B; tissue carboxypeptidase B; peptidyl-L-lysine [L-arginine]hydrolase; EC 3.4.17.2; 9025-24-5

Product Information

Species	Human
Source	Human pancreas
Form	Solution in 0.05 M NaOAc pH 5.0 + 1.0 M NaCl + 0.01% NaN3
EC Number	EC 3.4.17.2
CAS No.	9025-24-5
Activity	50-55 units/mg protein carboxypeptidase B
Pathway	Pancreatic secretion, organism-specific biosystem; Pancreatic secretion, conserved biosystem; Protein digestion and absorption, organism-specific biosystem; Protein digestion and absorption, conserved biosystem
Function	carboxypeptidase activity; metal ion binding; metallocarboxypeptidase activity; metallopeptidase activity; peptidase activity; zinc ion binding
Unit Definition	One unit will hydrolyze 1 µmole of hippuryl-L-arginine per minute at pH 7.7 at 25°C

Storage and Shipping Information

Storage	−20°C