Creative Enzymes®

Native Porcine Carboxypeptidase B

Cat. No. NATE-0152

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 has been used in a study to develop a non-invasive pregnancy assay for use in both captive and wild polar bears. Carboxypeptidase B has been used in a study that identified new potential biomarkers of acute pancreatitis. The enzyme from Creative Enzymes has been used to develop homogeneous time-resolved fluorescence (HTRF) assay for measuring carboxypeptidase B activity in a miniaturized high-throughput screening format. It has been used to evaluate the impact of the C-terminal lysine (s) in human plasminogen binding to Bifidobacterium. The effect of treatment with carboxypeptidase B, which is a C-terminal lysine-specific endopeptidase, is measured using flow cytometry analysis.
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	Porcine
Source	Porcine pancreas
Form	lyophilized powder. Contains HEPES buffer salts and carbohydrate
EC Number	EC 3.4.17.2
CAS No.	9025-24-5
Unit Definition	One unit will hydrolyze 1.0 μmole of hippuryl-L-arginine per min at pH 7.65 at 25°C.

Storage and Shipping Information

Storage	−20°C