

Carboxypeptidase B from Porcine, Recombinant

Product Information

Cat#	NATE-1147
Abbr	CPB1, Recombinant (Porcine)
Alias	CPB1
Similar	CPB1
Source	Porcine
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.
Appearance	White powder, lyophilized
Product Overview	Carboxypeptidase B (EC 3.4.17.2), also well known as protaminase, pancreatic procarboxy-peptidase B (PCPB), tissue carboxypeptidase B, peptidyl-L-lysine (L-arginine) hydrolase is a highly pancreas-specific protein (PASP), and has been identified previously as a serum marker for acute pancreatitis and pancreatic graft rejection. As the prototype for those exopeptidases that cleave off basic C-terminal residues, CPB1 specifically cleaves the C-terminal Arg and Lys residues with a preference for Arg. The B1 and B2 forms of procarboxypeptidase B differ from each other mainly in isoelectric point. The deduced amino acid sequence of CPB predicts a 416-amino acid preproenzyme consisting of a 15-aasignal peptide, a 95-aa activation peptide and a 307-aa mature chain. The secreted CPB zymogen is converted to enzymatically active CPB by limited proteolysis by trypsin.
Form	Freeze dried powder
Enzyme	EC 3.4.17.2

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Number

Activity	>180U/mg
Molecular Weight	About 35kDa (SDS-PAGE detection)
Purity	>90% (SDS-PAGE test)
Unit Definition	One unit will catalyze 1.0 μ mole of Hip-L-Arg per min at pH 7.65 at 25°C.
Storage	Redissolved in 20% glycerol, 4°C, store at -20°C for long-term preservation, Avoid multiple freeze-thaw cycles.
Buffer	20mM NaAc, pH3.5
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