

## Carboxypeptidase B from Porcine, Recombinant

### Product Information

<b>Cat#</b>	NATE-1147
<b>Abbr</b>	CPB1, Recombinant (Porcine)
<b>Alias</b>	CPB1
<b>Similar</b>	CPB1
<b>Source</b>	Porcine
<b>Description</b>	<p>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.</p>
<b>Appearance</b>	White powder, lyophilized
<b>Product Overview</b>	<p>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-aa signal 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.</p>
<b>Form</b>	Freeze dried powder
<b>Enzyme</b>	EC 3.4.17.2



**Creative Enzymes**

*Diagnostic Enzymes*

## **Carboxypeptidase B from Porcine, Recombinant**

**Commission  
Number**

**Activity** >180U/mg

**Molecular Weight** About 35kDa (SDS-PAGE detection)

**Purity** >90% (SDS-PAGE test)

**Unit Definition** One unit will catalyze 1.0  $\mu$ 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