



## Recombinant Protein Technical Manual

**Recombinant Human Carboxypeptidase B1/CPB1  
Protein (His Tag)(Active)**  
RPES2574

### Product Data:

**Product SKU:** RPES2574

**Size:** 10µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_001862.2

### Protein Information:

**Molecular Mass:** 47 kDa

**AP Molecular Mass:** 45 kDa

**Tag:** C-His

**Bio-activity:** Measured by its ability to cleave a colorimetric peptide substrate, Hippuryl-Arg, as measured using the wavelength at 254 nm. The specific activity is >10000 pmoles/min/µg.

**Purity:** > 98 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 25mM MES, 0.1 M NaCl, pH 6.5

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Carboxypeptidase B; Pancreas-Specific Protein; PASP; CPB1; CPB; PCPB

## Immunogen Information:

**Sequence:** Met 1-Tyr 417

## Background:

Carboxypeptidase B1, also well known as pancreatic procarboxypeptidase B (PCPB), 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 human 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 PCPB 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 PCPB zymogen is converted to enzymatically active CPB1 by limited proteolysis by trypsin.