

Mouse Anti-Human Carboxypeptidase B1 Monoclonal Antibody

Cat. No. CAB11512MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse Monoclonal Antibody to Human Carboxypeptidase B1
Species	Human
Source	Mouse
Antigen Description	Human 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.
Specificity	Human CPB1 / PCPB. No cross-reactivity in WB and ELISA with mouse CPB1, human CPA1, human CPA2, human CPE and human cell lysate (293 cell line)
Immunogen	Recombinant human CPB1 protein
Isotype	Mouse IgG1

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Clone	3D11D7C13
Applications	WB; ELISA
Dilution	Western blot: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human CPB1 in WB. Using a DAB detection system, the detection limit for human CPB1 is approximately 1 ng/lane under non-reducing conditions and reducing conditions. ELISA: This antibody can be used at 0.5 - 1 µg/mL with the appropriate secondary reagents to detect human CPB1. The detection limit for human CPB1 is 0.31 ng/well
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant human CPB1. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70°C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	CPB1 carboxypeptidase B1 (tissue) [Homo sapiens]
Official Symbol	CPB1
Synonyms	CPB1; carboxypeptidase B1 (tissue); carboxypeptidase B; pancreatic

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	carboxypeptidase B; protaminase; tissue carboxypeptidase B; procarboxypeptidase B; pancreas-specific protein; CPB; PASP; PCPB; DKFZp779K1333;
Gene ID	1360
mRNA Refseq	NM_001871
Protein Refseq	NP_001862
MIM	114852
UniProt ID	P15086
Chromosome Location	3q24
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; metalloproteinase activity; peptidase activity; zinc ion binding;