Human Carboxypeptidase B2/CPB2 Antibody

Monoclonal Mouse IgG_1 Clone # 650801

Catalog Number: MAB6036

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Carboxypeptidase B2/CPB2 in direct ELISAs and Western blots. In Western blots, approximately 20% cross-reactivity with recombinant human (rh) Carboxypeptidase A1, A4, recombinant mouse (rm) Carboxypeptidase A1, A4, B1, and 5% cross-reactivity with rhCarboxypeptidase B1, B2, and E is observed under reducing conditions. No cross-reactivity with any of these proteins is observed under nonreducing conditions.
Source	Monoclonal Mouse IgG_1 Clone # 650801
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carboxypeptidase B2/CPB2 Phe23-Val423 (predicted) Accession # Q96IY4
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

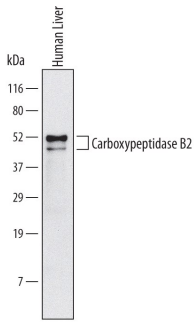
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Carboxypeptidase B2/CPB2, see our available Western blot detection antibodies.

DATA

Western Blot



Detection of Human Carboxypeptidase B2/CPB2 by Western Blot. Western blot shows lysates of human liver tissue. PVDF Membrane was probed with 2 µg/mL of Human Carboxypeptidase B2/CPB2 Monoclonal Antibody (Catalog # MAB6036) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Specific bands were detected for Carboxypeptidase B2/CPB2 at approximately 45 and 50 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CPB2 (Carboxypeptidase B2; also CPU and TAFI) is a secreted, 50-60 kDa glycoprotein member of the peptidase M14 family of enzymes. It is expressed by hepatocytes (60 kDa) and platelets (50 kDa), with MW differences attributable to glycosylation. CPB2 is cleaved by thrombin and plasmin, generating a 36 kDa, relatively insoluble nonglycosylated enzymatically active fragment (TAFIa). Active CPB2 removes C-terminal Lys residues from fibrin, thereby interrupting plasmin generation and promoting fibrin polymerization. Human CPB2 (proprecursor/zymogen) is 401 amino acids (aa) in length. It contains a prosequence (aa 23-114) and an active fragment (aa 115-423) that acts on C-terminal Lys or Arg residues. There is one potential isoform variant that shows a deletion of aa 198-234 accompanied by a 16 aa substitution for aa 382-423. Over aa 23-423, human CPB2 shares 85% aa identity with mouse CPB2.

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