

DESCRIPTION

Species Reactivity	Human
Specificity	Detects Carboxypeptidase B2/CPB2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) CPA1, rhCPB1 and recombinant mouse CPB1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carboxypeptidase B2/CPB2 Phe23-Val423 (Ala169Thr) Accession # Q961Y4
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.

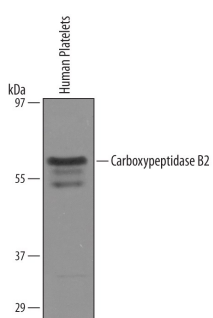
APPLICATIONS

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	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

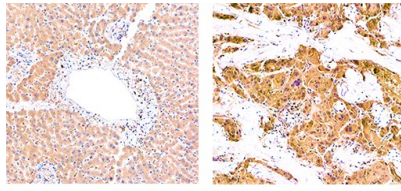
DATA

Western Blot



Detection of Human Carboxypeptidase B2/CPB2 by Western Blot. Western blot shows lysates of human platelets. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human Carboxypeptidase B2/CPB2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6036) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Carboxypeptidase B2/CPB2 at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

Immunohistochemistry



Carboxypeptidase B2/CPB2 in Human Liver and Liver Cancer Tissue. Carboxypeptidase B2/CPB2 was detected in immersion fixed paraffin-embedded sections of normal human liver (left panel) and human liver cancer tissue (right panel) using Sheep Anti-Human Carboxypeptidase B2/CPB2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6036) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in cancer cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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.