

Rabbit CPN1 Polyclonal Antibody | anti-CPN1 antibody

Anti-CPN1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125754	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

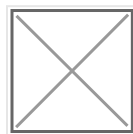
PRODUCT SYNONYMS

CPN1; Polyclonal Antibody; Anti-CPN1 Antibody; ACBP; Carboxypeptidase N catalytic chain; CPN; EC 3. 4. 17. 3; Anaphylatoxin inactivator; Arginine carboxypeptidase; Carboxypeptidase N polypeptide 1; Carboxypeptidase N small subunit; Kininase-1; Lysine carboxypeptidase; Plasma carboxypeptidase B; Serum carboxypeptidase N; SCPN; carboxypeptidase N subunit 1; anti-CPN1 antibody

PRODUCT SPECIFICATIONS

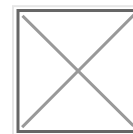
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for CPN1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-CPN1 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E Coli-derived human CPN1 recombinant protein (Position: D158-N208).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of HepG2 cells using anti-CPN1 antibody (AAA125754). Overlay histogram showing HepG2 cells stained with AAA125754 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CPN1 Antibody (AAA125754, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight[®]488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of CPN1 using anti-CPN1 antibody (AAA125754). CPN1 was detected in immunocytochemical section of CACO-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5µg/mL rabbit anti-CPN1 Antibody (AAA125754) overnight at 4 degree C. DyLight[®]488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of CPN1 using anti-CPN1 antibody (AAA125754). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: rat liver tissue lysates Lane 2: mouse liver tissue lysates Lane 3: rat C6 whole cell lysates Lane 4: mouse HEPA1-6 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CPN1 antigen affinity purified polyclonal antibody (Catalog # AAA125754) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CPN1 at approximately 52KD. The expected band size for CPN1 is at 52KD.

ADDITIONAL INFORMATION

Related Product Information for anti-CPN1 antibody	Carboxypeptidase N catalytic chain is an enzyme that in humans is encoded by the CPN1 gene. Carboxypeptidase N is a plasma metallo-protease that cleaves basic amino acids from the C terminal of peptides and proteins. The enzyme is important in the regulation of peptides like kinins and anaphylatoxins, and has also been known as kininase-1 and anaphylatoxin inactivator. This enzyme is a tetramer comprised of two identical regulatory subunits and two identical catalytic subunits; this gene encodes the catalytic subunit. Mutations in this gene can be associated with angioedema or chronic urticaria resulting from carboxypeptidase N deficiency.
References	1. Cao, H., Hegele, R. A. DNA polymorphism and mutations in CPN1, including the genomic basis of carboxypeptidase N deficiency. J. Hum. Genet. 48: 20-22, 2003. 2. Gebhard, W., Schube, M., Eulitz, M. cDNA cloning and complete primary structure of the small, active subunit of human carboxypeptidase N (kininase 1). Europ. J. Biochem. 178: 603-607, 1989. 3. Hegele, R. A. Personal Communication. London, Ontario, Canada 2/24/2003.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4503011
NCBI GeneID	1369
NCBI Accession #	NP_001299.1
NCBI GenBank Nucleotide #	NM_001308.2
UniProt Accession #	P15169
Molecular Weight	52,286 Da
NCBI Official Full Name	carboxypeptidase N catalytic chain
NCBI Official Synonym Full Names	carboxypeptidase N, polypeptide 1
NCBI Official Symbol	CPN1
NCBI Official Synonym Symbols	CPN; SCPN
NCBI Protein Information	carboxypeptidase N catalytic chain; kininase I; kininase-1; carboxypeptidase K; lysine carboxypeptidase; serum carboxypeptidase N; anaphylatoxin inactivator; arginine carboxypeptidase; plasma carboxypeptidase B; carboxypeptidase N small subunit; carboxype
UniProt Protein Name	Carboxypeptidase N catalytic chain
UniProt Gene Name	CPN1
UniProt Synonym Gene Names	ACBP; CPN; SCPN
UniProt Entry Name	CBPN_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cpn1-antibody-direct-elisa-flow-cytometry-immunofluorescence-immunocytochemistry-western-blot-elisa/125754>