

Rabbit CAPN1 Polyclonal Antibody | anti-CAPN1 antibody

CAPN1 Antibody

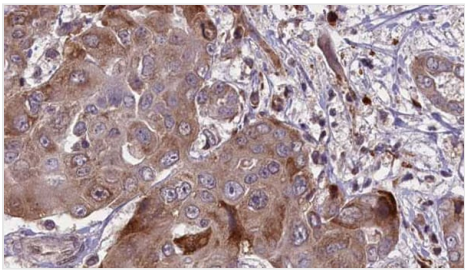
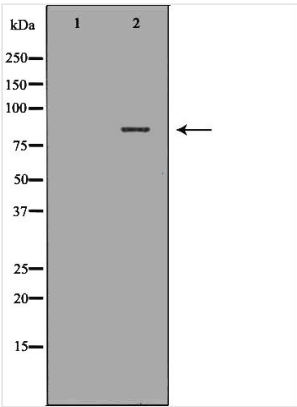
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326085	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CAPN1; Polyclonal Antibody; CAPN1 Antibody; Ca2 activated neutral protease; Calcium activated neutral proteinase; Calcium activated neutral proteinase small subunit; Calcium dependent protease small subunit 1; Calcium dependent protease small subunit; Calcium-activated neutral proteinase 1; Calpain 1; Calpain 1 large subunit; (mu/I) large subunit; Calpain mu type; Calpain mu-type; Calpain regulatory subunit; Calpain small subunit 1; Calpain; large polypeptide L1; Calpain-1 catalytic subunit; Calpain-1 large subunit; CAN1_HUMAN; CANP 1; CANP; CANP small subunit; CANP1; CANPL 1; CANPL1; CAPN 1; Cell proliferation inducing protein 30; Cell proliferation-inducing gene 30 protein; Micromolar Calpain; Micromolar-calpain; Mu Calpain; muCANP; muCL; anti-CAPN1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	CAPN1 antibody detects endogenous levels of total CAPN1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	714
Applicable Applications for anti-CAPN1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CAPN1
Subcellular Location	Cytoplasm. Cell Membrane. Translocates to the plasma membrane upon Ca(2+) binding.
Tissue Specificity	Ubiquitous.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Dog, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326085 at 1/100 staining Human liver cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of Hela cell lysate, using CAPN1 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-CAPN1 antibody

Description: Calpain is a calcium-dependent thiol proteinase that is functionally active as a heterodimer composed of a small regulatory subunit and one of at least two large catalytic subunits (calpain 1 or calpain 2). In vitro, calpain 1 (mu-calpain) requires micromolar levels of calcium, while calpain 2 (M-calpain) requires millimolar levels of calcium for activation. The regulation of calpain in vivo is the subject of many current studies, which suggest that proteolytic activity is regulated post-transcriptionally by mechanisms such as calcium requirements, subcellular localization of the heterodimer, phosphorylation via the EGFR-Erk signaling cascade, endogenous inhibitors (calpastatin) and autoproteolytic cleavage (1). Calpastatin negatively regulates autoproteolytic cleavage of calpain 1 between Gly27 and Leu28 (2). Calpain influences cell migration by modifying rather than degrading its substrates responsible for cell adhesion and cytoskeletal arrangement. Control of calpain activity has caught the attention of drug development since limiting its activity could mute invasiveness of tumors or chronic inflammation (1).
Function: Calcium-regulated non-lysosomal thiol-protease which catalyzes limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction.
Subunit Structure: Forms a heterodimer with a small (regulatory) subunit CAPNS1.
Post-translational Modifications: Undergoes calcium-induced successive autoproteolytic cleavages that generate a membrane-bound 78 kDa active form and an intracellular 75 kDa active form. Calpastatin reduces with high efficiency the transition from 78 kDa to 75 kDa calpain forms.
Similarity: Belongs to the peptidase C2 family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	311893363
NCBI GeneID	823
NCBI Accession #	NP_001185797.1
NCBI GenBank Nucleotide #	NM_001198868.1
UniProt Accession #	P07384; Q2TTR0; Q6DHV4
Molecular Weight	Observed: 82 kDa Predicted: 82 kDa
NCBI Official Full Name	calpain-1 catalytic subunit
NCBI Official Synonym Full Names	calpain 1
NCBI Official Symbol	CAPN1
NCBI Official Synonym Symbols	CANP; muCL; CANP1; SPG76; CANPL1; muCANP
NCBI Protein Information	calpain-1 catalytic subunit

UniProt Protein Name	Calpain-1 catalytic subunit
UniProt Gene Name	CAPN1
UniProt Synonym Gene Names	CANP 11 PublicationManual assertion based on opinion iniRef.1; muCANP1 PublicationManual assertion based on opinion iniRef.1

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://www.aaabiotech.com/polyclonal/capn1-antibody-immunohistochemistry-western-blot-elisa/326085>