

Anti-Calpain 1 Antibody

Catalog # ABO10688

Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P07384
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Calpain-1 catalytic subunit(CAPN1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	823
Other Names	Calpain-1 catalytic subunit, 3.4.22.52, Calcium-activated neutral proteinase 1, CANP 1, Calpain mu-type, Calpain-1 large subunit, Cell proliferation-inducing gene 30 protein, Micromolar-calpain, muCANP, CAPN1, CANPL1
Calculated MW	81890
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Frozen Section), 0.5-1 μ g/ml, Rat, Human, Mouse Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Rat, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm . Cell membrane . Translocates to the plasma membrane upon Ca(2+) binding. In granular keratinocytes and in lower corneocytes, colocalizes with FLG and FLG2 (PubMed:21531719). .
Tissue Specificity	Ubiquitous.
Source	Eukaryota
Protein Name	Calpain-1 catalytic subunit
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg Na ₃ .
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Calpain 1(312-326aa EWNNVDPYERDQLRV), different from the mouse sequence by two amino acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the peptidase C2 family.

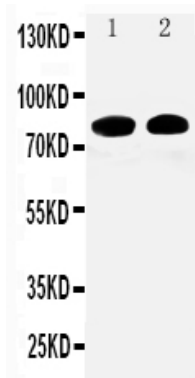
Protein Information

Name	CAPN1 (HGNC:1476)
Synonyms	CANPL1
Function	Calcium-regulated non-lysosomal thiol-protease which catalyzes limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction (PubMed: 19617626 , PubMed: 21531719 , PubMed: 2400579). Proteolytically cleaves CTBP1 at 'Asn-375', 'Gly-387' and 'His-409' (PubMed: 23707407). Cleaves and activates caspase-7 (CASP7) (PubMed: 19617626).
Cellular Location	Cytoplasm. Cell membrane. Note=Translocates to the plasma membrane upon Ca(2+) binding. In granular keratinocytes and in lower corneocytes, colocalizes with FLG and FLG2 (PubMed:21531719)
Tissue Location	Ubiquitous.

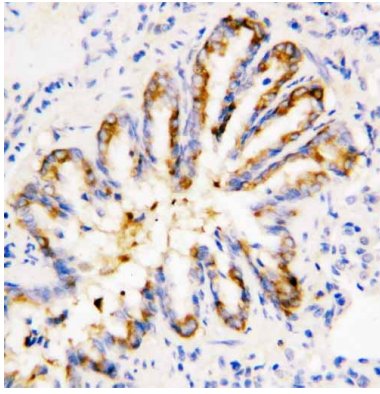
Background

Calpain-1 catalytic subunit is a protein that in humans is encoded by the CAPN1 gene. Calpain is an intracellular protease that requires calcium for its catalytic activity. Two isozymes, calpain I (mu-calpain) and calpain II (m-calpain), with different calcium requirements, have been identified. Both are heterodimers composed of L (large, catalytic, 80 kD) and S (small, regulatory, 30 kD) subunits. The isozymes share an identical S subunit, with the differences arising from the L subunits, L1 (CAPN1) and L2. By quantitative RT-PCR, Ueyama et al. (1998) found that expression of calpain-1 and calpain-2 mRNA was significantly increased in muscle biopsy samples derived from 5 men with progressive muscular dystrophy (e.g., DMD; 310200) and 2 men and 3 women with amyotrophic lateral sclerosis (ALS; 105400) compared with controls. Using cDNA clones as probes, Ohno et al. (1989, 1990) assign CANPL1 to chromosome 11.

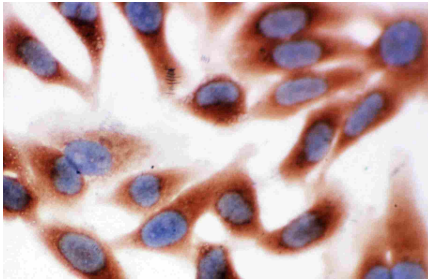
Images



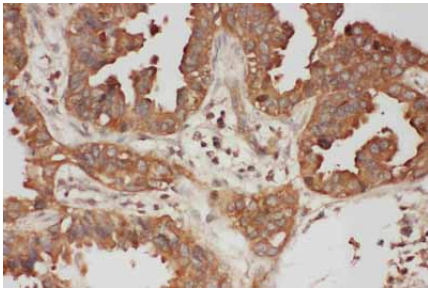
Anti-Calpain 1 antibody, ABO10688, Western blotting
 1: HT1080 Cell Lysate
 2: COLO320 Cell Lysate



Anti-Calpain 1 antibody, ABO10688, IHC(P)IHC(P): Rat Lung Tissue



Anti-Calpain 1 antibody, ABO10688, ICCICC: HELA Cell



Anti-Calpain 1 antibody, ABO10688, IHC(P)IHC(P): Human Intestinal Cancer Tissue

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