



Rabbit Anti-Calpain 2 antibody

SL1599R

Product Name:	Calpain 2
Chinese Name:	钙激活的中性蛋白酶2抗体
Alias:	Calcium activated neutral proteinase 2; Calcium activated neutral proteinase; CALP80; Calpain 2 (m/II) large subunit; Calpain 2 catalytic subunit; Calpain 2 large catalytic subunit; Calpain 2 large subunit; Calpain large polypeptide L2; Calpain M type; Calcium-activated neutral proteinase 2; CALP80; Calpain 2, large [catalytic] subunit; Calpain M-type; Calpain-2 catalytic subunit; Calpain-2 large subunit; CAN2_MOUSE; M-calpain; Millimolar-calpain; Calpain2; CANP 2; CANP L2; CANP2; CANPL 2; CANPL2; CANPml; Capa2; CAPN 2; CAPN2; FLJ39928; M calpain; M calpin; M type; mCANP; Millimolar calpain.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	78kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from mouse Calpain 2:301-400/700
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

Calpain, and m calpain, also known as Calpain 2, are intracellular, calcium dependent cysteine proteases. Mu calpain has a micromolar sensitivity (thus the mu) as compared to the millimolar calcium sensitivity of m calpain. Both Calpains 1 and 2 are composed of an 80 kD subunit and a 30 kD subunit. Whereas the 30 kDa subunit is shared by both enzymes, the larger catalytic subunits are different and exhibit the distinct Ca⁺⁺ requirements that are suggested by their names.

The calpains have papain like activity, thus the pain nomenclature. Both Calpain 1 and Calpain 2 are ubiquitously expressed, and are countered by the endogenous calpain inhibitor, calpastatin.

Other calpain family members (calpain 94, ncl2, ncl3, etc) have more limited tissue distribution, and perhaps different functions. The calpain family members consist of a common small subunit (Calpain 4), and a large variable subunit. It is not clear that all calpains contain a small subunit. Domains in the large subunit include the amino terminal domain I, the proteinase domain II, domain III, and the EF hand domain IV. The calpains appear to serve multiple physiological roles, and ideas concerning the functions of these enzymes are in a state of rapid flux.

Function:

Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction.

Subunit:

Forms a heterodimer with a small (regulatory) subunit (CAPNS1).

Subcellular Location:

Cytoplasm. Cell membrane. Note=Translocates to the plasma membrane upon Ca(2+) binding.

Tissue Specificity:

Ubiquitous.

Similarity:

Belongs to the peptidase C2 family.

Contains 1 calpain catalytic domain.

Contains 2 EF-hand domains.

SWISS:

O08529

Gene ID:

12334

Database links:

[Entrez Gene: 824](#)Human

[Entrez Gene: 12334](#)Mouse

Product Detail:

[Entrez Gene: 29154](#)Rat

[Olim: 114230](#)Human

[SwissProt: P17655](#)Human

[SwissProt: O08529](#)Mouse

[SwissProt: Q07009](#)Rat

[Unigene: 350899](#)Human

[Unigene: 19306](#)Mouse

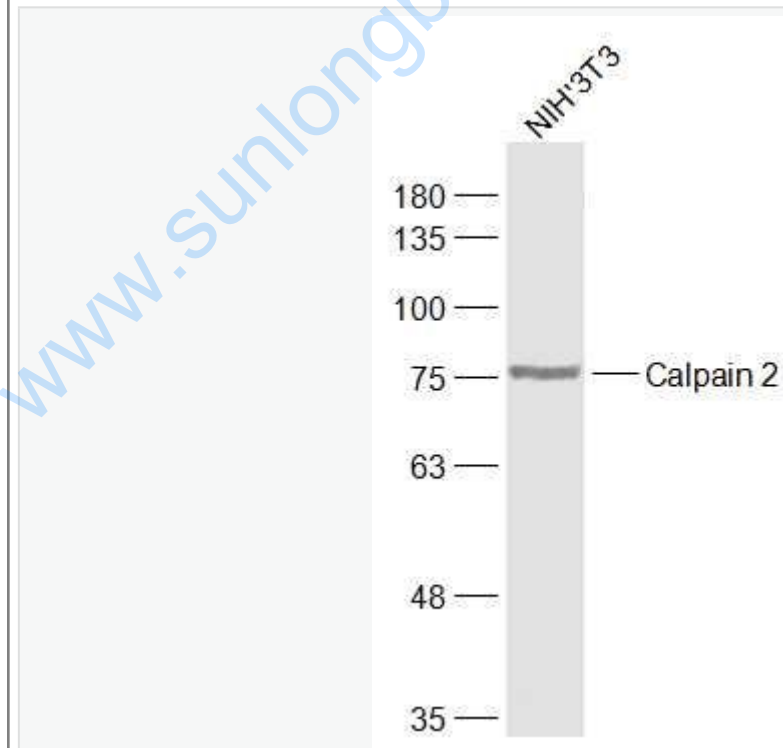
[Unigene: 6822](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

钙蛋白酶2(calpain2)也是一族钙离子依赖性的、水解半胱氨酸的蛋白酶,广泛存在于全身各脏器组织中。钙蛋白酶参与不同细胞过程,包括Cytoskeleton和The cell membrane附着的构型重建、不同的Signal transduction途径和Apoptosis等。

Picture:



Sample:

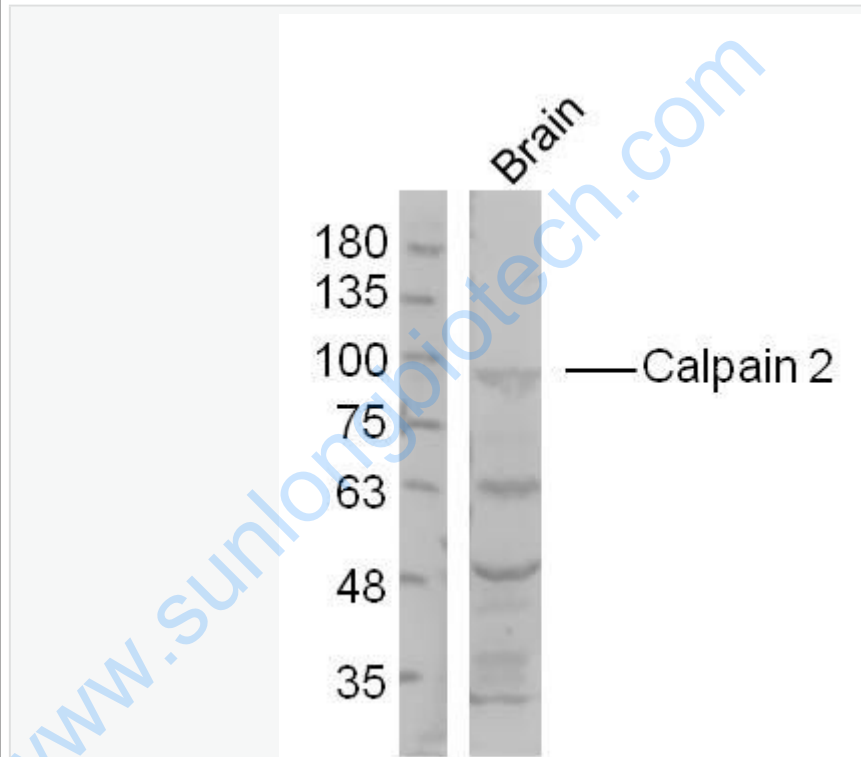
NIH/3T3(Mouse) Cell Lysate at 30 ug

Primary: Anti-Calpain 2 (SL1599R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 78 kD

Observed band size: 78 kD



Sample:

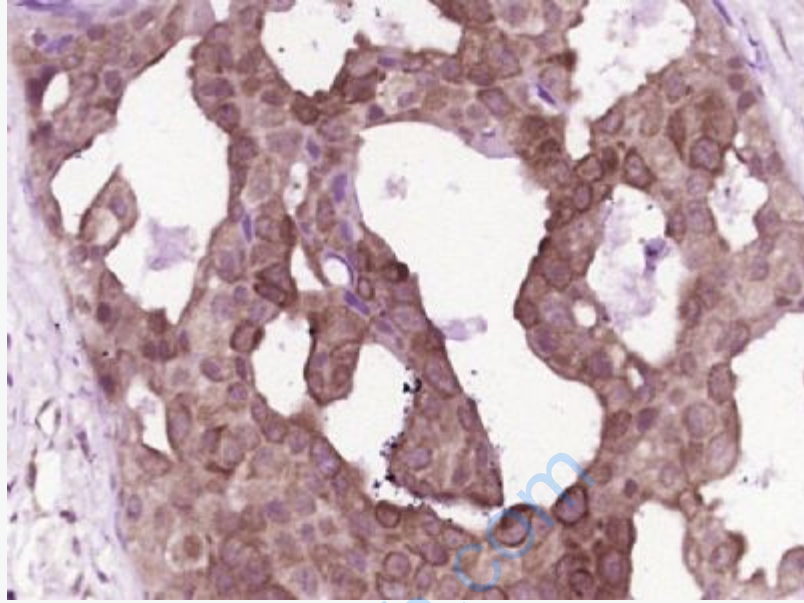
Brain (Mouse) Lysate at 40 ug

Primary: Anti- Calpain 2(SL1599R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 78 kD

Observed band size: 90 kD



Paraformaldehyde-fixed, paraffin embedded (human breast carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Calpain 2) Polyclonal Antibody, Unconjugated (SL1599R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.