

## [KD Validated] Anti-CAPN1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

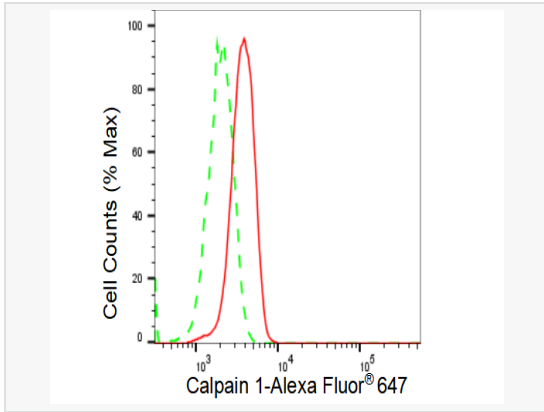
Catalog # R021663

### Product Information

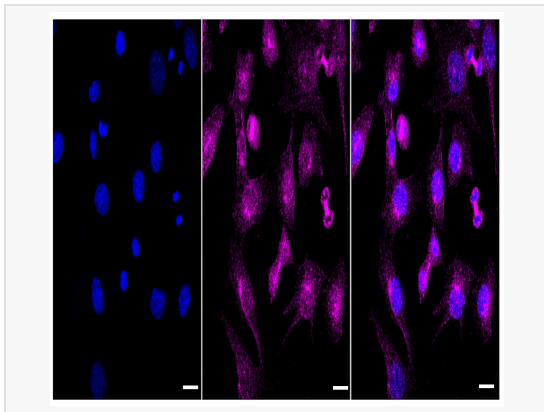
Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	60A96B60
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Calpain 1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-CAPN1 Rabbit mAb [60A96B60] is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

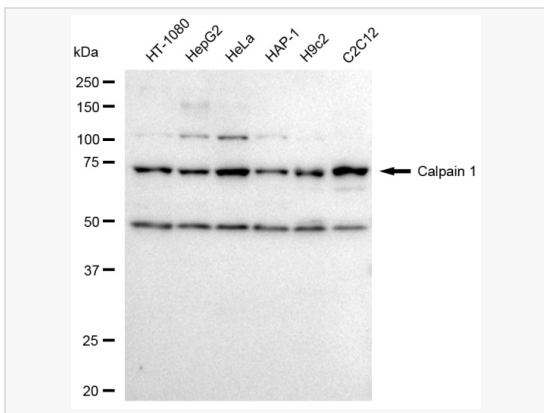
Synonyms	CAPN1; Calpain 1; CANPL1; MuCANP; CANP; Cell Proliferation-Inducing Gene 30 Protein; Calcium-Activated Neutral Proteinase 1; Calpain 1, (Mu/I) Large Subunit; Calpain-1 Catalytic Subunit; Calpain-1 Large Subunit; Micromolar-Calpain; Calpain Mu-Type; EC 3.4.22.52; CANP; MuCL; Cell Proliferation-Inducing Protein 30; Calpain, Large Polypeptide L1; EC 3.4.22; MUCANP; CANP1; SPG76; MUCL.
Calculated MW	Calculated MW: 82 kDa, Observed MW: 75 kDa
Uniprot ID	P07384
Gene ID	823
Background	The calpains, calcium-activated neutral proteases, are nonlysosomal, intracellular cysteine proteases. The mammalian calpains include ubiquitous, stomach-specific, and muscle-specific proteins. The ubiquitous enzymes consist of heterodimers with distinct large, catalytic subunits associated with a common small, regulatory subunit. This gene encodes the large subunit of the ubiquitous enzyme, calpain 1. Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Nov 2010].
Cellular Location	Cytoplasm. Cell membrane. Translocates to the plasma membrane upon Ca(2+) binding.
Tissue Location	Ubiquitous.



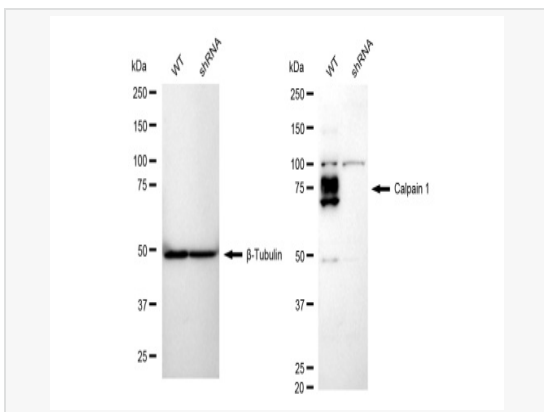
Flow cytometric analysis of Calpain 1 expression in C2C12 cells using Calpain 1 antibody (R021663, 1:2,000). Green, isotype control; red, Calpain 1.



Immunocytochemical staining of C2C12 cells with Calpain 1 antibody (R021663, 1:1,000). Nuclei were stained blue with DAPI; Calpain 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20  $\mu$ m.



Western blotting analysis using Calpain 1 antibody (R021663). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Calpain 1 antibody (R021663, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using Calpain 1 antibody (R021663). Calpain 1 expression in wild type (WT) and Calpain 1 shRNA knockdown (KD) HeLa cells with 30  $\mu$ g of total cell lysates.  $\beta$ -Tubulin serves as a loading control. The blot was incubated with Calpain 1 antibody (R021663, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.