
Product Name: KD-Validated Calpain Small Subunit 1 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01536**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 28.3kDa

Antigen Information

Gene Name	CAPNS1 CAPNS1; Calpain Small Subunit 1; CDPS; CANPS; CAPN4; CANP; Calcium-Activated Neutral Proteinase Small Subunit; Calcium-Dependent Protease Small Subunit 1; Calpain Regulatory
Alternative Names	Subunit; CANP Small Subunit; CSS1; 30K; Epididymis Secretory Sperm Binding Protein; Calcium-Dependent Protease, Small Subunit; Calcium-Dependent Protease Small Subunit; Calpain 4, Small Subunit (30K); Calpain, Small Polypeptide; CALPAIN4; CAPNS
Gene ID	826.0
SwissProt ID	P04632
Immunogen	A synthesized peptide derived from human Calpain small subunit 1

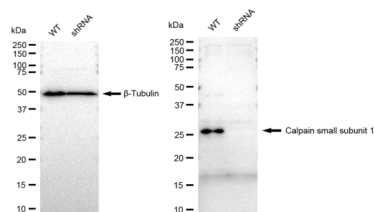
Background

This gene is a member of the calpain small subunit family. Calpains are calcium-dependent cysteine proteinases that are widely distributed in mammalian cells. Calpains operate as heterodimers, comprising a specific large catalytic subunit (calpain 1 subunit in Calpain I, and calpain 2 subunit in Calpain II), and a common small regulatory subunit encoded by this gene. This encoded protein is essential for the stability and function of both calpain heterodimers, whose proteolytic activities influence various cellular functions including apoptosis, proliferation, migration, adhesion, and autophagy. Calpains have been implicated in neurodegenerative processes, such as myotonic dystrophy. A pseudogene of this gene has been defined on chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]

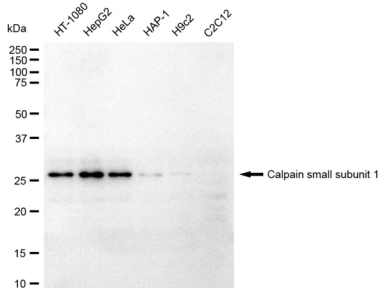
Research Area

Signal Transduction, Signal Transduction, Cell Biology, Metabolism

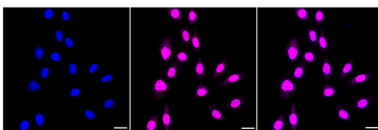
Image Data



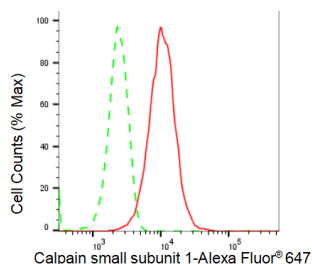
Western blotting analysis using Calpain small subunit 1 antibody (KVA01536). Calpain small subunit 1 expression in wild type (WT) and Calpain small subunit 1 shRNA knockdown (KD) HeLa cells with 30 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with Calpain small subunit 1 antibody (KVA01536, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Calpain small subunit 1 antibody (KVA01536). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Calpain small subunit 1 antibody (KVA01536, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Calpain small subunit 1 antibody (KVA01536, 1:1,000). Nuclei were stained blue with DAPI; Calpain small subunit 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 μ m.



Flow cytometric analysis of Calpain small subunit 1 expression in HepG2 cells using Calpain small subunit 1 antibody (KVA01536, 1:2,000). Green, isotype control; red, Calpain small subunit 1.