

Product Name: KD-Validated Calpastatin Mouse Monoclonal Antibody**Catalog #: KVA00659**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse 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: 76.6kDa

Antigen Information

Gene Name	CAST CAST; Calpastatin; Sperm BS-17 Component; Calpain Inhibitor; MIR583HG; MIR583 Host Gene; NONHSAG041072.2; NONHSAG041079.2; NONHSAG041069.2; NONHSAG041075.2;
Alternative Names	NONHSAG041074.2; HSALNG0043632; HSALNG0148668; HSALNG0043636; HSALNG0043640; HSALNG0037602; HSALNG0043637; MIR583 Host; Lnc-CAST-10; Lnc-CAST-3; BS-17; PLACK
Gene ID	831.0
SwissProt ID	P20810
Immunogen	Recombinant protein of human CAST

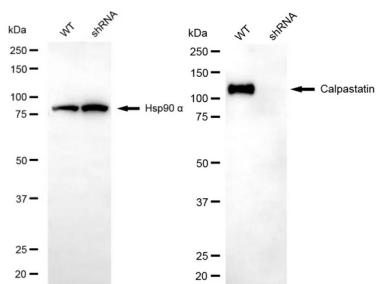
Background

The protein encoded by this gene is an endogenous calpain (calcium-dependent cysteine protease) inhibitor. It consists of an N-terminal domain L and four repetitive calpain-inhibition domains (domains 1-4), and it is involved in the proteolysis of amyloid precursor protein. The calpain/calpastatin system is involved in numerous membrane fusion events, such as neural vesicle exocytosis and platelet and red-cell aggregation. The encoded protein is also thought to affect the expression levels of genes encoding structural or regulatory proteins. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jun 2010]

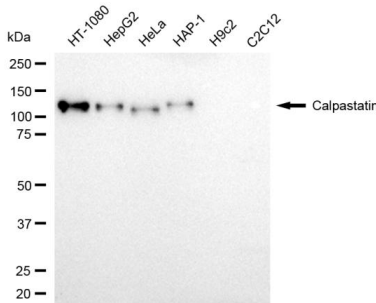
Research Area

Neuroscience, Cell Biology

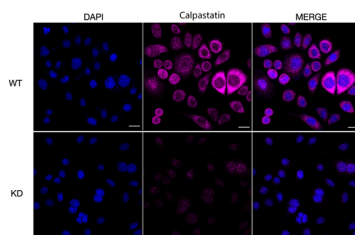
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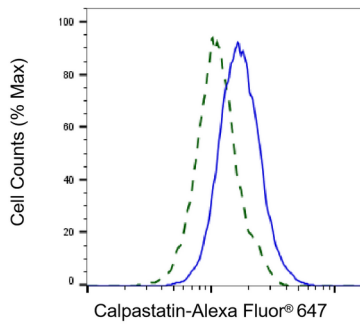
Western blotting analysis using calpastatin antibody (KVA00659). Calpastatin expression in wild type (WT) and calpastatin (CAST) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with calpastatin antibody (KVA00659, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Western blotting analysis using calpastatin antibody (KVA00659). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with calpastatin antibody (KVA00659, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Immunocytochemical staining of HeLa cells using calpastatin antibody (KVA00659, 1:1,000). Top panel: wild-type (WT); Bottom panel: CAST shRNA knockdown (KD). Nuclei were stained blue with DAPI; Calpastatin was stained magenta with Alexa Fluor® 647. Scale bar: 20 µm.



Validation of Calpastatin knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Calpastatin antibody (KVA00659, 1:2,000) and analyzed using BD flow cytometer.