
Product Name: KD-Validated Caldesmon 1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00750

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
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: 93.2kDa

Antigen Information

Gene Name	CALD1
Alternative Names	CALD1; Caldesmon 1; CDM; H-CAD; LCAD; H-CD; Caldesmon; Testis Secretory SpermBinding Protein Li 227n; NAG22; HCAD; LCAD; CAD
Gene ID	800.0
SwissProt ID	Q05682
Immunogen	A synthesized peptide derived from human Caldesmon

Background

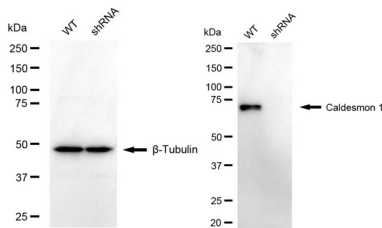
This gene encodes a calmodulin- and actin-binding protein that plays an essential role in the regulation of smooth muscle and nonmuscle contraction. The conserved domain of this protein possesses the binding activities to Ca(2+)-calmodulin, actin, tropomyosin, myosin, and phospholipids. This protein is a potent inhibitor of the actin-tropomyosin activated myosin

MgATPase, and serves as a mediating factor for Ca(2+)-dependent inhibition of smooth muscle contraction. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008]

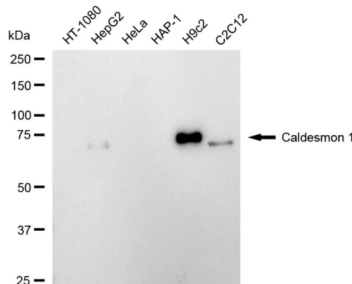
Research Area

Signal Transduction, Cardiovascular

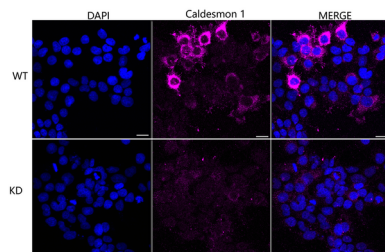
Image Data



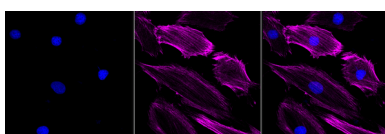
Western blotting analysis using caldesmon 1 antibody (KVA00750). Caldesmon 1 expression in wild type (WT) and caldesmon 1 (CALD1) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with caldesmon 1 antibody (KVA00750, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



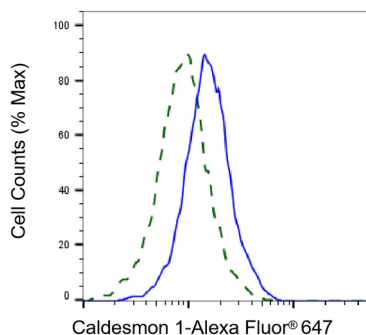
Western blotting analysis using caldesmon 1 antibody (KVA00750). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with caldesmon 1 antibody (KVA00750, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



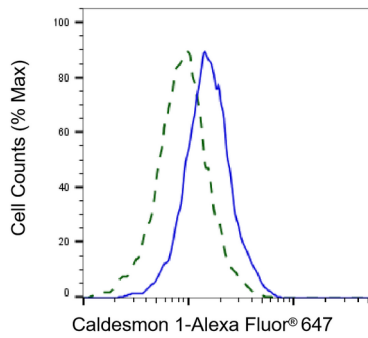
Immunocytochemical staining of HeLa cells using Caldesmon 1 antibody (KVA00750, 1:1,000). Top panel: wild-type (WT); Bottom panel: Caldesmon 1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Caldesmon 1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of H9C2 cells with Caldesmon 1 antibody (KVA00750, 1:1,000). Nuclei were stained blue with DAPI; Caldesmon 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 µm.



Validation of Caldesmon 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Caldesmon 1 antibody (KVA00750, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of caldesmon 1 expression in H9c2 cells using caldesmon 1 antibody (KVA00750, 1:2,000). Green, isotype control; red, caldesmon 1.