[KD Validated] Anti-CALD1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R020823

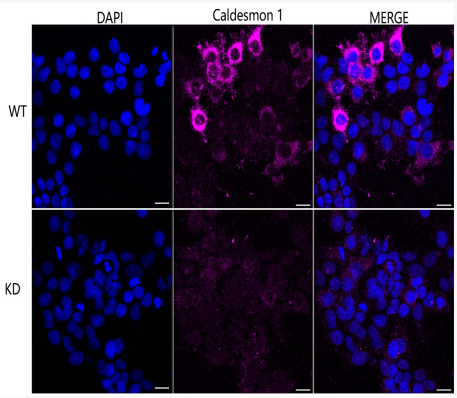
Product Information

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.	94J25S78
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Caldesmon
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-CALD1 Rabbit mAb [94J25S78] is for research use only and not for use in diagnostic or therapeutic procedures.

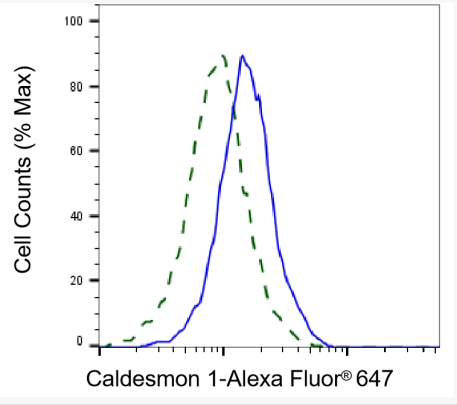
Protein Information

Synonyms	CALD1; Caldesmon 1; CDM; H-CAD; LCAD; H-CD; Caldesmon; Testis Secretory SpermBinding Protein Li 227n; NAG22; HCAD; LCAD; CAD.
Calculated MW	Calculated MW: 93 kDa, Observed MW: 70-80 kDa
Uniprot ID	Q05682
Gene ID	800
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]

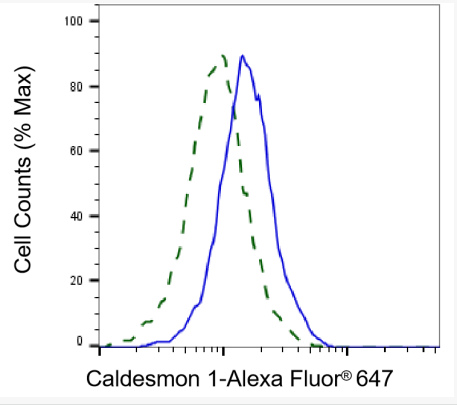
Validation Images



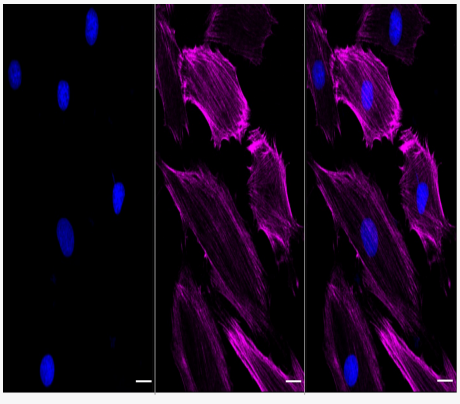
Immunocytochemical staining of HeLa cells using Caldesmon 1 antibody (R020823, 1:1,000), Top panal: wild-type (WT); Bottom panal: Caldesmon 1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Caldesmon 1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



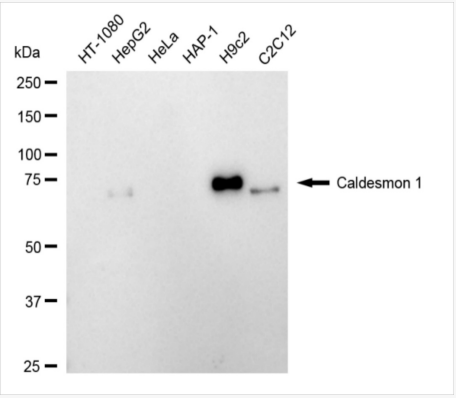
Validation of Caldesmon 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Caldesmon 1 antibody (R020823, 1:2,000) and analyzed using BD flow cytometer.



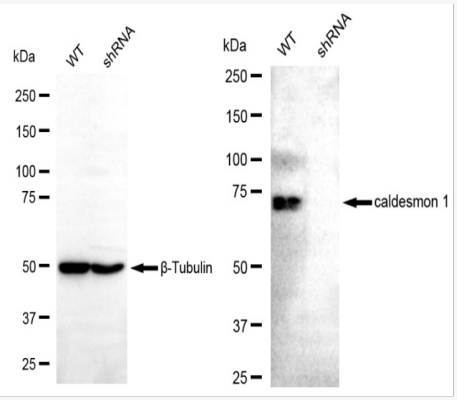
Flow cytometric analysis of caldesmon 1 expression in H9c2 cells using caldesmon 1 antibody (R020823, 1:2,000). Green, isotype control; red, caldesmon 1.



Immunocytochemical staining of H9C2 cells with Caldesmon 1 antibody (R020823, 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.



Western blotting analysis using caldesmon 1 antibody (R020823). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with caldesmon 1 antibody (R020823, 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 caldesmon 1 antibody (R020823). 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 (R020823, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.