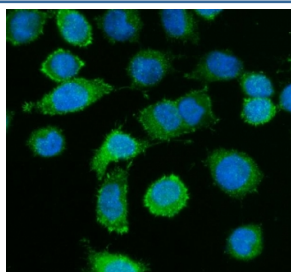


Caldesmon Antibody / CALD1 / CAD (R32405)

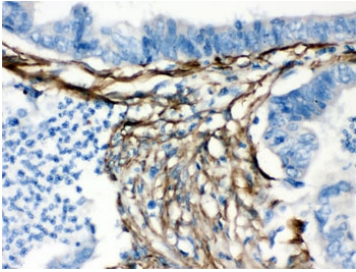
Catalog No.	Formulation	Size
R32405	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

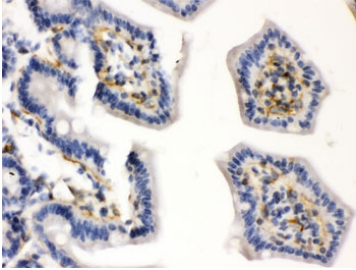
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	Q05682
Localization	Cytoplasmic
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Caldesmon antibody is available for research use only.



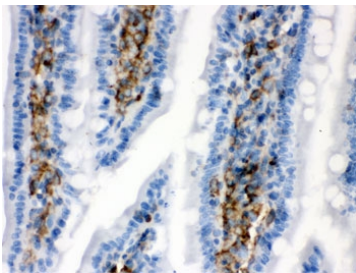
Immunofluorescent staining of FFPE human SiHa cells with Caldesmon antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



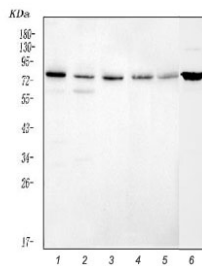
IHC testing of FFPE human intestine with Caldesmon antibody. HIER: Boil the paraffin sections in pH8 EDTA buffer for 20 minutes and allow to cool prior to testing.



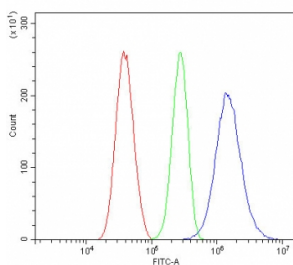
IHC testing of FFPE mouse intestine with Caldesmon antibody. HIER: Boil the paraffin sections in pH8 EDTA buffer for 20 minutes and allow to cool prior to testing.



IHC testing of FFPE rat intestine with Caldesmon antibody. HIER: Boil the paraffin sections in pH8 EDTA buffer for 20 minutes and allow to cool prior to testing.



Western blot testing of 1) human U-2 OS, 2) human A549, 3) human HepG2, 4) human HeLa, 5) human Caco-2 and 6) mouse NIH 3T3 cell lysate with Caldesmon antibody. Predicted molecular weight ~93 kDa, can be observed at 70-80 kDa (non muscle tissue) and 120-150 kDa (smooth muscle).



Flow cytometry testing of human U-87 MG cells with Caldesmon antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue=Caldesmon antibody.

Description

Caldesmon is a protein that in humans is encoded by the CALD1 gene. It is mapped to 7q33. 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.

Application Notes

Optimal dilution of the Caldesmon antibody should be determined by the researcher.

Immunogen

Amino acids M1-E120 of the human protein were used as the immunogen for the Caldesmon antibody.

Storage

After reconstitution, the Caldesmon antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.