

[KO]Caldesmon/CDM Rabbit mAb

Catalog # AP75179

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	Q05682
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	93231

Additional Information

Gene ID	800
Other Names	CALD1
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A FC~~1:20-1:50 IP~~1:20
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	CALD1
Synonyms	CAD, CDM
Function	Actin- and myosin-binding protein implicated in the regulation of actomyosin interactions in smooth muscle and nonmuscle cells (could act as a bridge between myosin and actin filaments). Stimulates actin binding of tropomyosin which increases the stabilization of actin filament structure. In muscle tissues, inhibits the actomyosin ATPase by binding to F-actin. This inhibition is attenuated by calcium-calmodulin and is potentiated by tropomyosin. Interacts with actin, myosin, two molecules of tropomyosin and with calmodulin. Also plays an essential role during cellular mitosis and receptor capping. Involved in Schwann cell migration during peripheral nerve regeneration (By similarity).
Cellular Location	Cytoplasm, cytoskeleton {ECO:0000250 UniProtKB:P13505}. Cytoplasm, myofibril {ECO:0000250 UniProtKB:P13505}. Cytoplasm, cytoskeleton, stress

fiber {ECO:0000250|UniProtKB:P13505}. Note=On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle)
{ECO:0000250|UniProtKB:P13505}

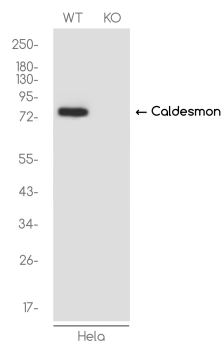
Tissue Location

High-molecular-weight caldesmon (isoform 1) is predominantly expressed in smooth muscles, whereas low-molecular-weight caldesmon (isoforms 2, 3, 4 and 5) are widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart

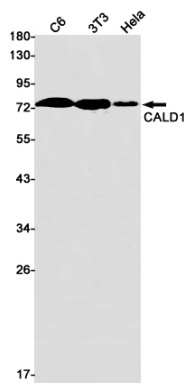
Background

Actin- and myosin-binding protein implicated in the regulation of actomyosin interactions in smooth muscle and nonmuscle cells (could act as a bridge between myosin and actin filaments). Stimulates actin binding of tropomyosin which increases the stabilization of actin filament structure. In muscle tissues, inhibits the actomyosin ATPase by binding to F-actin.

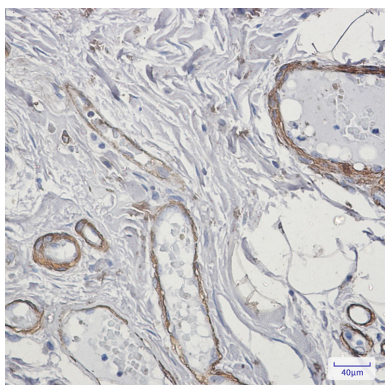
Images



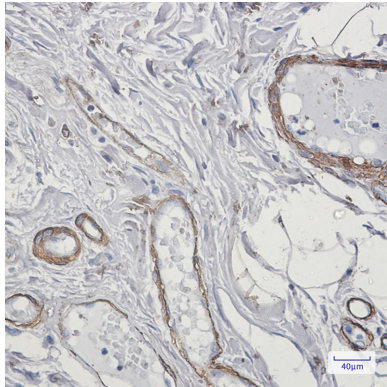
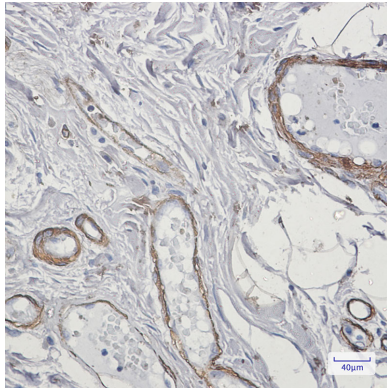
Western blot analysis of Caldesmon in HeLa(WT) and Caldesmon-Knockout HeLa(KO) using Caldesmon antibody.



Western blot analysis of CALD1 in C6, 3T3, HeLa lysates using Caldesmon antibody.



Immunohistochemistry analysis of paraffin-embedded Human colon cancer using Caldesmon antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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