

Anti-Caldesmon (Smooth) Antibody (Monoclonal, hHCD)

Catalog # ABO10404

Product Information

Application	WB, IHC-P
Primary Accession	Q62736
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Mouse IgG monoclonal antibody for Caldesmon (smooth), caldesmon 1 (CALD1) detection. Tested with WB, IHC-P in Human;mouse;rabbit. No cross reactivity with other proteins.

Additional Information

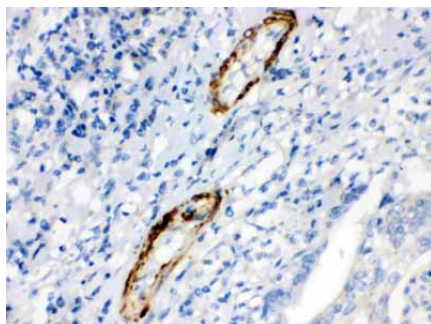
Gene ID	25687
Other Names	Non-muscle caldesmon, CDM, L-caldesmon, Cald1
Calculated MW	60584
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, mouse, rabbit, By Heat Western blot, 0.25-0.5 µg/ml, Human, mouse, rabbit
Subcellular Localization	Cytoplasm, cytoskeleton . Cytoplasm, myofibril . On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle). .
Tissue Specificity	High-molecular-weight caldesmon (h-caldesmon) is predominantly expressed in smooth muscles, whereas low- molecular-weight caldesmon (l-caldesmon) is widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart.
Source	Eukaryota
Protein Name	Caldesmon
Contents	Each vial contains 50% glycerol, 1.2% Sodium acetate, 1% BSA, 0.02% NaN3.
Clone Names	hHCD
Immunogen	Human uterus smooth muscle extract.
Purification	Ascites

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year, at 4° C for one month. Avoid repeated freezing and thawing.
Protein Information	
Name	Cald1
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.
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 (h-caldesmon) is predominantly expressed in smooth muscles, whereas low-molecular-weight caldesmon (l-caldesmon) is widely distributed in non-muscle tissues and cells. Not expressed in skeletal muscle or heart

Background

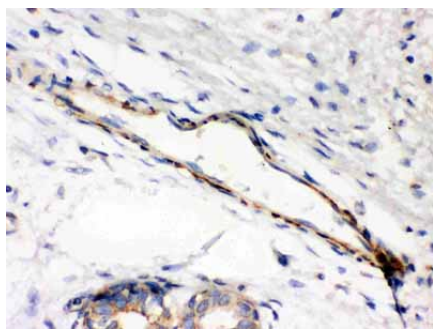
Caldesmon is a potential actomyosin regulatory protein found in smooth muscle and nonmuscle cells. The predicted smooth-muscle polypeptide is 793 amino acids long. The high molecular weight caldesmon(h-CaD) is predominantly expressed in smooth muscles, whereas the low molecular weight caldesmon(l-CaD) is widely distributed in nonmuscle tissues and cells. Hayashi et al.(1992) demonstrated that the human CDM gene is composed of 14 exons.

Images



Anti-Caldesmon(smooth) antibody, ABO10404, IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-Caldesmon(smooth) antibody, ABO10404, IHC(P)IHC(P): Human Mammary Cancer Tissue



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