Best Tools for immunology Research

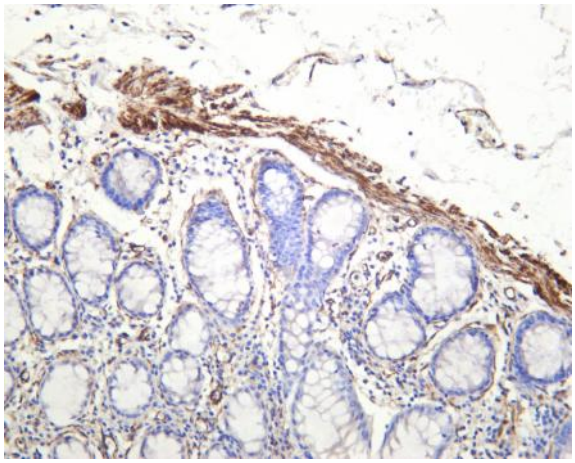
Caldesmon (PT0379R) PT® Rabbit mAb

Catalog No :	YM8229
Reactivity :	Human; Mouse; Rat;
Applications :	WB;IHC;IF;IP;ELISA
Target :	Caldesmon
Fields :	>>Vascular smooth muscle contraction
Gene Name :	CALD1
Protein Name :	Caldesmon
Human Gene Id :	800
Human Swiss Prot No :	Q05682
Rat Gene Id :	25687
Rat Swiss Prot No :	Q62736
Specificity :	endogenous
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, rabbit, IgG, Kappa
Dilution :	IHC 1:200-1:1000;WB 1:2000-1:10000;IF 1:200-1:1000;ELISA 1:5000-1:20000;IP 1:50-1:200;
Purification :	Protein A
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	93kD

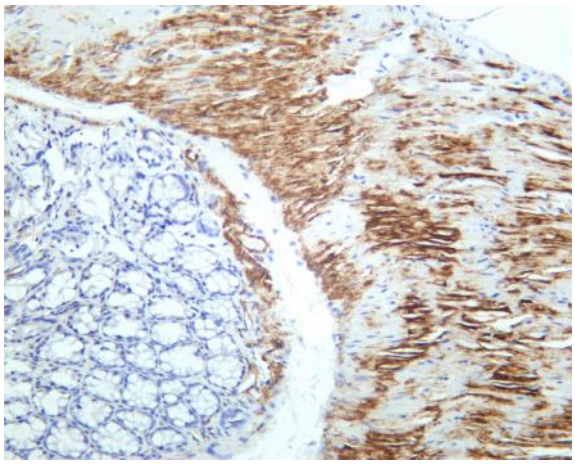
Observed Band :	70kD
Cell Pathway :	Vascular smooth muscle contraction;
Background :	This gene encodes a calmodulin- and actin-binding protein that plays an essential role in the regulation of smooth muscle and nonmuscle contraction. The conserved domain of this protein possesses the binding activities 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],
Function :	domain:The N-terminal part seems to be a myosin/calmodulin-binding domain, and the C-terminal a tropomyosin/actin/calmodulin-binding domain. These two domains are separated by a central helical region in the smooth-muscle form.,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 play an essential role during cellular mitosis and receptor capping.,PTM:In non-muscle cells, phosphorylation by CDC2 during mit
Subcellular Location :	Cytoplasm
Expression :	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.
Tag :	hot,recombinant
Sort :	3055
No4 :	1
Host :	Rabbit
Modifications :	Unmodified

Products Images

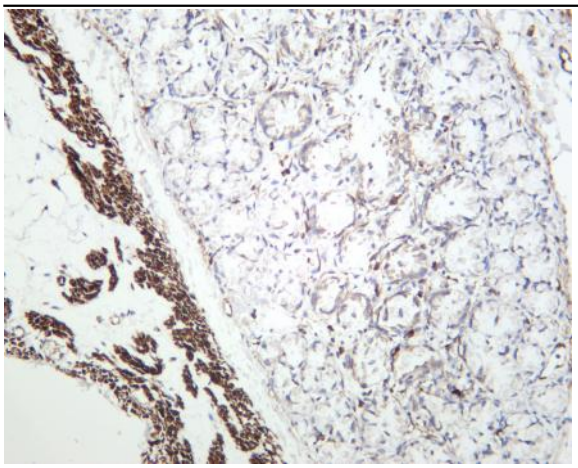
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Caldesmon (PT0379R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: 3T3-L1 Lane 3: C6 Lane 4: U-87 MG Predicted band size: 93kDa Observed band size: 70kDa



Human colon was stained with anti-Caldesmon (PT0379R) rabbit antibody



Mouse colon was stained with anti-Caldesmon (PT0379R) rabbit antibody



Rat colon was stained with anti-Caldesmon (PT0379R) rabbit antibody