Best Tools for immunology Research

Caldesmon (ABT125) mouse mAb (Ready to Use)

Catalog No :	YM6826R
Reactivity :	Human;
Applications :	IHC
Target :	Caldesmon
Fields :	>>Vascular smooth muscle contraction
Gene Name :	CALD1 CAD CDM
Protein Name :	Caldesmon pan
Human Gene Id :	800
Human Swiss Prot No :	Q05682
Immunogen :	Synthesized peptide derived from human Caldesmon pan AA range: 100-200
Specificity :	The antibody can recognize human h-caldesmon and l-caldesmon protein.
Formulation :	The prediluted ready-to-use antibody is diluted in phosphate buffer saline containing stabilizing protein and 0.05% Proclin 300
Source :	Mouse, Monoclonal/IgG2a, kappa
Dilution :	Ready to use for IHC
Purification :	The antibody was affinity-purified from ascites by affinity-chromatography using specific immunogen.
Storage Stability :	2°C to 8°C/1 year
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

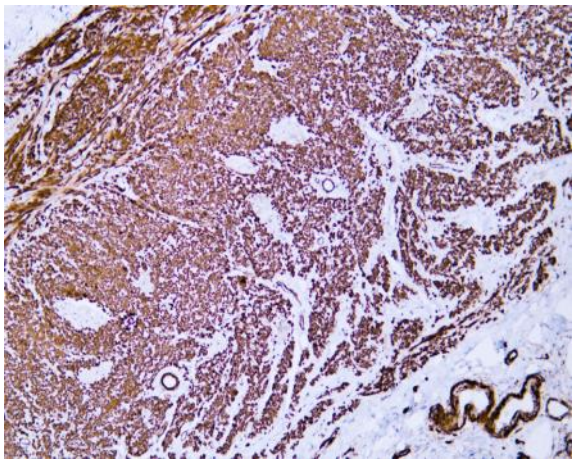
a potent inhibitor of the actin-tropomyosin activated myosin MgATPase, and serves as a mediating factor for Ca(2+)-dependent inhibition of smooth muscle contraction. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008],

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

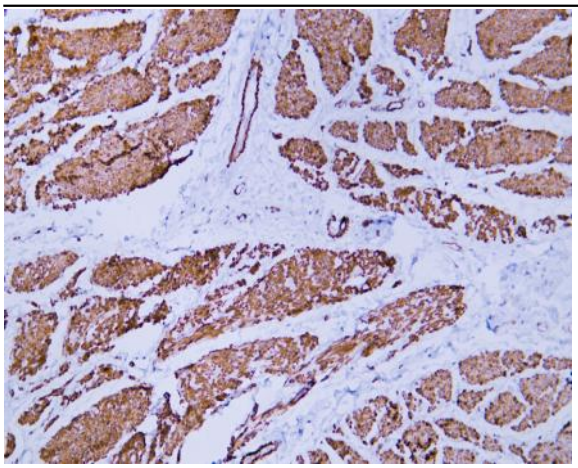
Subcellular Location : Cytoplasmic

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.

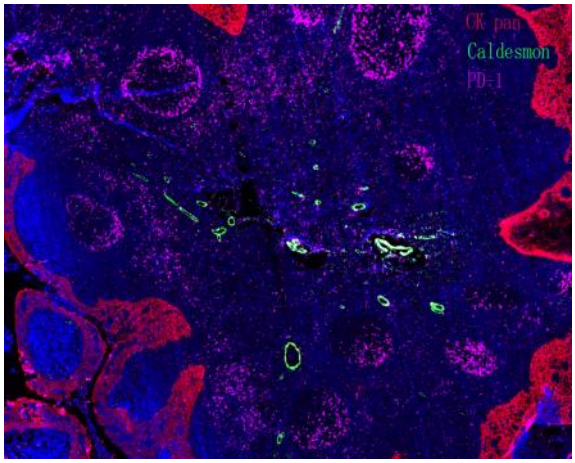
Products Images



Human appendix tissue was stained with anti-Caldesmon(ABT125) antibody.



Human smooth muscle tissue was stained with anti-Caldesmon(ABT125) antibody.



Fluorescence multiplex immunohistochemical analysis of normal human appendix tissue (formalin-fixed paraffin-embedded section).The section was incubated in 3 rounds of staining; in the order of CK PAN .(Catalog no:YM6815 1/200 dilution), PD-1.(Catalog no: YM6208 1/200 dilution), Caldesmon pan. (Catalog no:YM6826 1/200 dilution),each using a separate fluorescent tyramide signal amplification system : Treble-Fluorescence immunohistochemical mouse/rabbit kit Catalog NO: RS0035 (pH9.0)