



# Caldesmon pan mouse mAb(ABT125)

<b>Catalog No</b>	YP-Ab-15539
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human
<b>Applications</b>	IHC;WB;IF
<b>Gene Name</b>	CALD1 CAD CDM
<b>Protein Name</b>	Caldesmon pan
<b>Immunogen</b>	Synthesized peptide derived from human Caldesmon pan
<b>Specificity</b>	The antibody can recognize human h-caldesmon and l-caldesmon protein. In western blotting , the antibody labels a 93KDa band.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.165% sodium azide.
<b>Source</b>	Mouse, Monoclonal/IgG2a, Kappa
<b>Purification</b>	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
<b>Dilution</b>	IHC-p 1:100-500, WB 1:200-1000, IF 1:100-500
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	Caldesmon (CDM)
<b>Observed Band</b>	
<b>Cell Pathway</b>	Cytoplasm, cytoskeleton . Cytoplasm, myofibril . Cytoplasm, cytoskeleton, stress fiber . On thin filaments in smooth muscle and on stress fibers in fibroblasts (nonmuscle). .
<b>Tissue Specificity</b>	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.
<b>Function</b>	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



## 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  $\text{Ca}^{2+}$ -calmodulin, actin, tropomyosin, myosin, and phospholipids. This protein is a potent inhibitor of the actin-tropomyosin activated myosin  $\text{MgATPase}$ , and serves as a mediating factor for  $\text{Ca}^{2+}$ -dependent inhibition of smooth muscle contraction. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008],

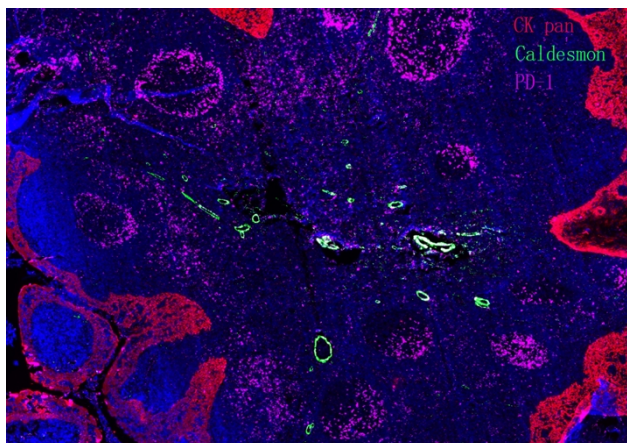
## matters needing attention

Avoid repeated freezing and thawing!

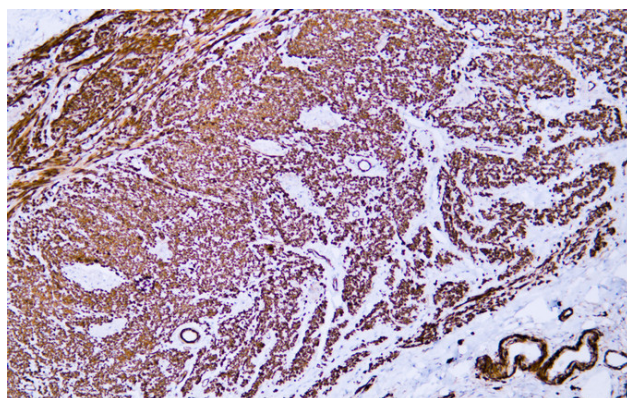
## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

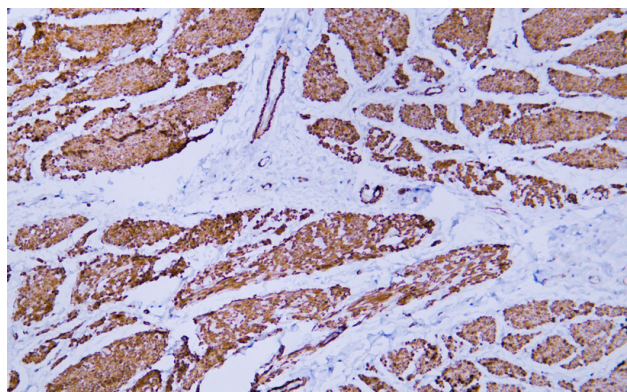
## Products Images



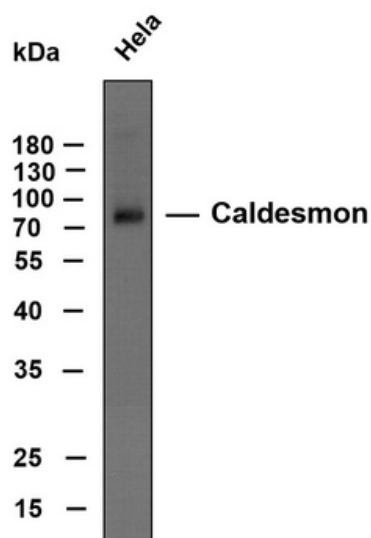
Fluorescence multiplex immunohistochemical analysis of normal human appendix tissue (formalin-fixed paraffin-embedded section). The section was incubated in 3 rounds of staining; in the order of CK PAN .(Catalog no:YM6815 1/200 dilution), PD-1.(Catalog no: YM6208 1/200 dilution), Caldesmon pan. (Catalog 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)



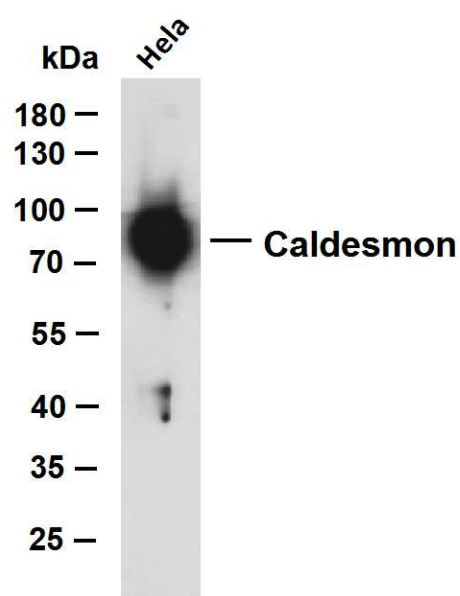
Human appendix tissue was stained with anti-Caldesmon(ABT125) antibody.



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



Whole cell lysates of HeLa were separated by 10% SDS-PAGE, and the membrane was blotted with anti-Caldesmon antibody. The HRP-conjugated anti-Mouse IgG antibody was used to detect the antibody. Predicted band size: 93(75)kDa



HeLa whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-Caldesmon(ABT125) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Predicted band size: 93kDa Observed band size: 93kDa