

## Caldesmon (ABT125) mouse mAb (Ready to Use)

<b>Catalog No :</b>	YM6826R
<b>Reactivity :</b>	Human;
<b>Applications :</b>	IHC
<b>Target :</b>	Caldesmon
<b>Fields :</b>	>>Vascular smooth muscle contraction
<b>Gene Name :</b>	CALD1 CAD CDM
<b>Protein Name :</b>	Caldesmon pan
<b>Human Gene Id :</b>	800
<b>Human Swiss Prot No :</b>	Q05682
<b>Immunogen :</b>	Synthesized peptide derived from human Caldesmon pan AA range: 100-200
<b>Specificity :</b>	The antibody can recognize human h-caldesmon and l-caldesmon protein.
<b>Formulation :</b>	The prediluted ready-to-use antibody is diluted in phosphate buffer saline containing stabilizing protein and 0.05% Proclin 300
<b>Source :</b>	Mouse, Monoclonal/IgG2a, kappa
<b>Dilution :</b>	Ready to use for IHC
<b>Purification :</b>	The antibody was affinity-purified from ascites by affinity-chromatography using specific immunogen.
<b>Storage Stability :</b>	2°C to 8°C/1 year
<b>Background :</b>	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  $\text{Ca}^{2+}$ -dependent inhibition of smooth muscle contraction. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008],

### 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.

### Tag :

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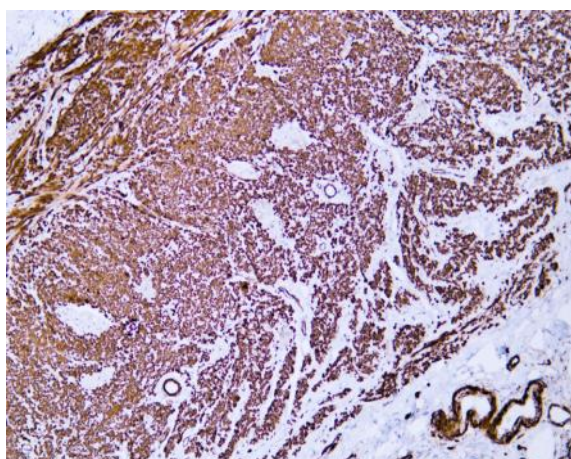
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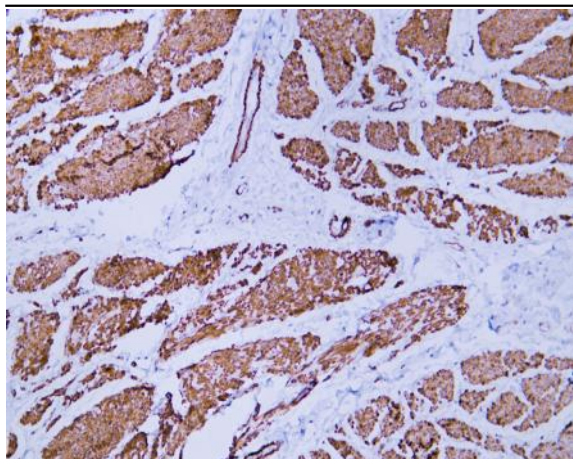
### No4 :

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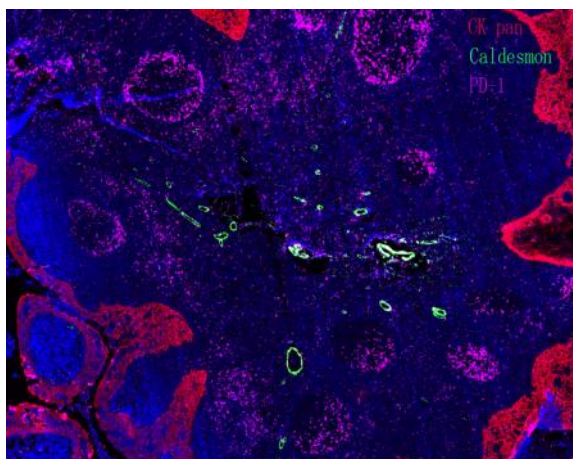
## Products Images



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)