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Calponin-1 (Smooth Muscle Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone CNN1/832 + CALP]
Catalog # AH11114

Product Information

Application	IHC, IF, FC
Primary Accession	P51911
Other Accession	1264, 465929
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG's
Clone Names	CNN1/832 + CALP
Calculated MW	33170

Additional Information

Gene ID	1264
Other Names	Calponin-1, Basic calponin, Calponin H1, smooth muscle, CNN1
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Calponin-1 (Smooth Muscle Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CNN1
Function	Thin filament-associated protein that is implicated in the regulation and modulation of smooth muscle contraction. It is capable of binding to actin, calmodulin and tropomyosin. The interaction of calponin with actin inhibits the actomyosin Mg-ATPase activity (By similarity).
Tissue Location	Smooth muscle, and tissues containing significant amounts of smooth muscle

Background

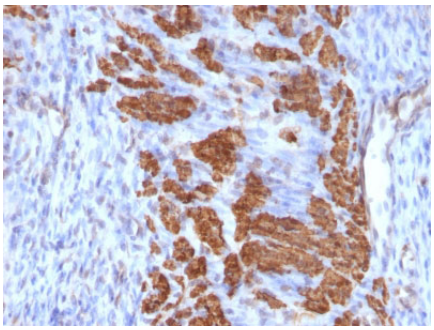
Multiple isoelectric variants of calponin have been identified, however only two molecular weight isoforms exist; a 34kDa form and a 29kDa form. Expression of the 29kDa form, I-calponin, is primarily restricted to

muscle of the urogenital tract, whereas the higher molecular weight variant has been demonstrated in vascular and visceral smooth muscle. In Western blotting, this MAb reacts with only the 34kDa form of calponin in extracts of human aortic medial smooth muscle and is unreactive with fibroblast extracts of cultivated human foreskin. Calponin is a calmodulin, F-actin and tropomyosin binding protein, which is thought to be involved in the regulation of smooth muscle contraction. Calponin expression is restricted to smooth muscle cells and has been shown to be a marker of the differentiated (contractile) phenotype of developing smooth muscle.

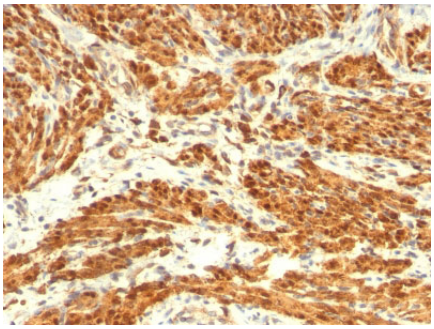
References

Tang, D.C., et al. 1996. Structure-function relations of smooth muscle Calponin. The critical role of Serine 175. J. Biol. Chem. 271: 8605-8611. | Frid MG, et al. Phenotypic changes of human smooth muscle cells during development: Late expression of heavy caldesmon and calponin. Dev Biol 1992; 153:185 |

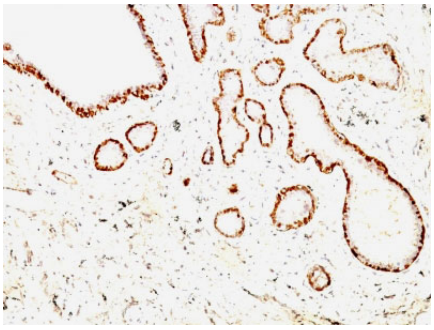
Images



Formalin-fixed, paraffin-embedded human Uterus stained with Calponin-1 Monoclonal Antibody (CNN1/832 + CALP).



Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with Calponin-1 Monoclonal Antibody (CNN1/832 + CALP).



Formalin-fixed, paraffin-embedded Rat Uterus stained with Calponin-1 Monoclonal Antibody (CNN1/832 + CALP).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.