

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

Mouse Monoclonal Antibody [Clone SPM169 ]

Catalog # AH11108

## Product Information

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<b>Application</b>	IHC, IF, FC
<b>Primary Accession</b>	<a href="#">P51911</a>
<b>Other Accession</b>	<a href="#">1264</a> , <a href="#">465929</a>
<b>Reactivity</b>	Human, Rat
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1, kappa
<b>Clone Names</b>	SPM169
<b>Calculated MW</b>	33170

## Additional Information

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<b>Gene ID</b>	1264
<b>Other Names</b>	Calponin-1, Basic calponin, Calponin H1, smooth muscle, CNN1
<b>Application Note</b>	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
<b>Storage</b>	Store at 2 to 8°C.Antibody is stable for 24 months.
<b>Precautions</b>	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

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<b>Name</b>	CNN1
<b>Function</b>	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).
<b>Tissue Location</b>	Smooth muscle, and tissues containing significant amounts of smooth muscle

## Background

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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.

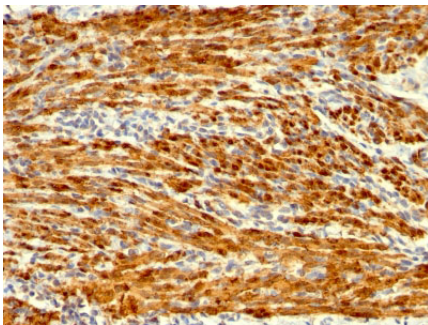
## References

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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

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Formalin-fixed, paraffin-embedded human Uterus stained with Calponin-1 Monoclonal Antibody (SPM169).

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