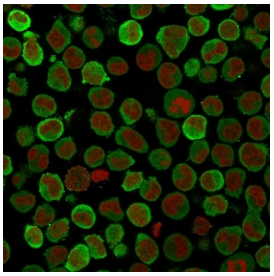
Calponin Antibody [clone SPM169] (V2464)

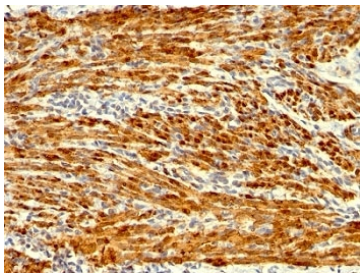
Catalog No.	Formulation	Size
V2464-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2464-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2464SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2464IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

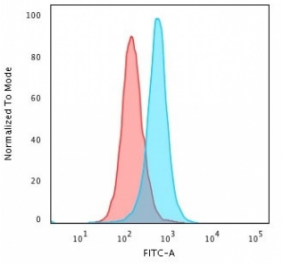
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SPM169
Purity	Protein G affinity chromatography
UniProt	P51911
Localization	Cytoplasmic
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This Calponin antibody is available for research use only.



Immunofluorescent staining of PFA-fixed human K562 cells with Calponin antibody (clone SPM169, green) and Reddot nuclear stain (red).



IHC: Formalin-fixed, paraffin-embedded human uterus stained with Calponin antibody (clone SPM169).



Flow cytometry testing of PFA-fixed human K562 cells with Calponin antibody (clone SPM169); Red=isotype control, Blue= Calponin antibody.

Description

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.

Application Notes

Optimal dilution of the Calponin antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Crude human uterus extract was used as the immunogen for the Calponin antibody.

Storage

Store the Calponin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).