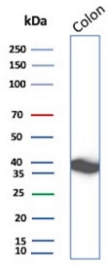
CNN1 Antibody Recombinant Mouse MAb / Calponin 1 [clone rCNN1/6918] (V4585)

Catalog No.	Formulation	Size
V4585-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4585-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4585SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

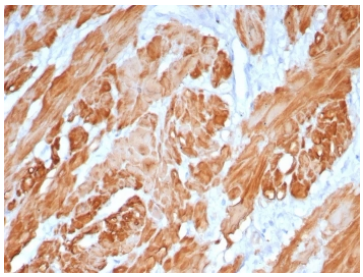
Recombinant | MOUSE MONOCLONAL

Bulk quote request

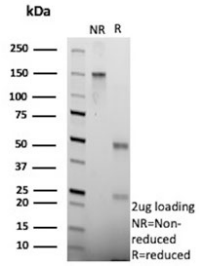
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rCNN1/6918
Purity	Protein A/G affinity
UniProt	P51911
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This CNN1 antibody is available for research use only.



Western blot testing of human colon tissue lysate with CNN1 antibody recombinant mouse mAb. Predicted molecular weight ~34 kDa.



Immunohistochemistry of CNN1 Antibody in human uterus. Formalin-fixed, paraffin-embedded human uterine tissue was stained using the recombinant mouse monoclonal CNN1 antibody (clone rCNN1/6918), demonstrating strong cytoplasmic staining of smooth muscle cells within the myometrium, consistent with Calponin 1 expression in contractile smooth muscle fibers, while endometrial glandular epithelium shows minimal staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to testing.



SDS-PAGE analysis of purified, BSA-free CNN1 antibody (clone rCNN1/6918) as confirmation of integrity and purity.

Description

CNN1 antibody recognizes Calponin 1, an actin-binding protein encoded by the CNN1 gene and a well-established marker of smooth muscle differentiation. CNN1 Antibody Recombinant Mouse MAb (clone rCNN1/6918) is generated through recombinant expression to promote consistent performance and lot-to-lot reproducibility in research applications. Calponin 1 localizes predominantly to the cytoplasm of smooth muscle cells, where it associates with actin filaments and regulates contractile activity and cytoskeletal organization.

CNN1 antibody, also referred to as Calponin 1 antibody and basic calponin antibody in the literature, targets a member of the calponin family of actin-binding proteins. Calponin 1 contains calponin homology domains and actin-binding regions that facilitate interaction with actin, tropomyosin, and other contractile proteins. Through these interactions, Calponin 1 modulates actomyosin ATPase activity and supports maintenance of the contractile phenotype in differentiated smooth muscle cells.

CNN1 expression is characteristic of vascular smooth muscle, gastrointestinal smooth muscle, uterine myometrium, and myoepithelial cells of glandular tissues such as breast and salivary gland. The expected immunostaining pattern is cytoplasmic positivity in smooth muscle layers and myoepithelial cell populations. Because of this lineage-restricted distribution, Calponin 1 serves as a reliable research marker for identifying smooth muscle and myoepithelial differentiation in normal tissues.

In tumor biology research, Calponin 1 expression is frequently evaluated in studies of leiomyoma, leiomyosarcoma, myoepithelial tumors, and other mesenchymal neoplasms. Cytoplasmic staining supports smooth muscle or myoepithelial lineage, whereas most epithelial carcinomas demonstrate limited or absent expression. CNN1 Antibody Recombinant Mouse MAb (clone rCNN1/6918) enables reliable detection of Calponin 1 expression patterns in normal and neoplastic tissues for research use at NSJ Bioreagents.

Application Notes

Optimal dilution of the CNN1 antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 197-297) from the human protein was used as the immunogen for the CNN1 antibody recombinant mouse mAb.

Storage

Aliquot the CNN1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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