

Product Datasheet

alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free

NBP2-34760-0.1mg

Unit Size: 0.1 mg

Store at -20 to -80C. Avoid freeze-thaw cycles.

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alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free

Product Information

Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at -20 to -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	SPM332
Preservative	No Preservative
Isotype	IgG2a Kappa
Purity	Protein A or G purified
Buffer	10 mM PBS
Target Molecular Weight	42 kDa

Product Description

Description	1.0 mg/ml of antibody purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS WITHOUT BSA & azide. Also available at 200 ug/ml WITH BSA & azide (NBP2-32808). Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C.
Host	Mouse
Gene ID	59
Gene Symbol	ACTA2
Species	Human, Mouse, Rat, Porcine, Bovine, Canine, Chicken, Feline, Guinea Pig, Goat, Baboon, Monkey, Rabbit, Sheep
Marker	Leiomyosarcoma Marker
Specificity/Sensitivity	Actin is a major component of the cytoskeleton and is present in most cell types. This monoclonal antibody is highly specific to actin from smooth muscles. Its epitope lies in the first four N-terminal amino acids. This monoclonal antibody does not stain cardiac or skeletal muscle; however, it does stain myofibroblasts and myoepithelial cells. This antibody could be used together with anti-muscle specific actin and myogenin in making a diagnosis of smooth muscle and skeletal muscle tumors. In most cases of rhabdomyosarcoma, this antibody yields negative results whereas anti-muscle specific actin and myogenin are positive. Leiomyosarcomas are positive only with anti-muscle specific actin and anti-smooth muscle actin and are negative with anti-myogenin.
Immunogen	N-Terminal decapeptide of alpha smooth muscle isoform of actin and conjugated to KLH. (Uniprot: P62736)

Product Application Details

Applications	Western Blot, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, CyTOF-ready
Recommended Dilutions	Western Blot, Flow Cytometry, Immunohistochemistry, Immunocytochemistry/Immunofluorescence 0.5-1ug/ml, Immunohistochemistry-Paraffin 0.5-1ug/ml, Flow (Intracellular), CyTOF-ready

Application Notes

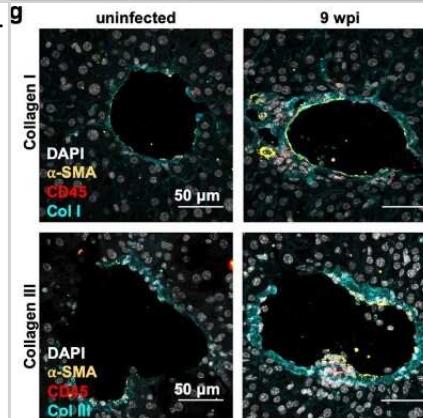
Immunohistochemistry (Formalin-fixed): 1-2ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined.

Images

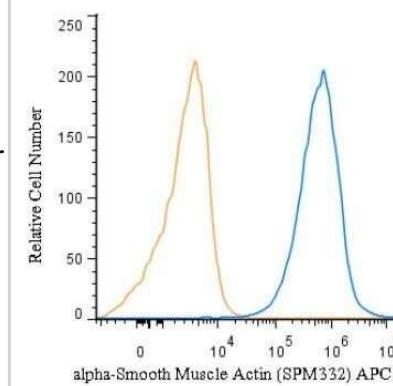
Immunocytochemistry/Immunofluorescence: alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free [NBP2-34760] - Immunofluorescence Analysis of HeLa cells labeling Smooth Muscle Actin with alpha-Smooth Muscle Actin Antibody (SPM332) followed by Goat anti-Mouse IgG-CF488(Green). The nuclear counterstain is NucSpot (Red).



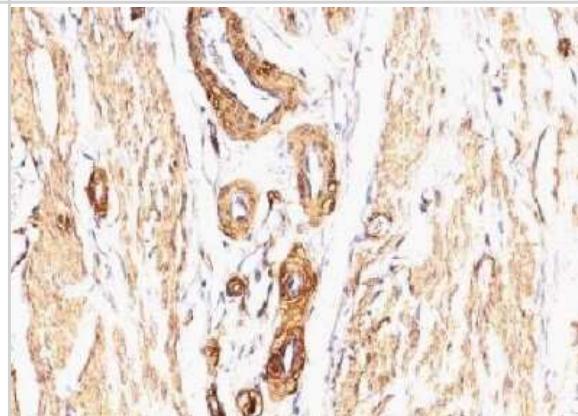
Immunohistochemistry: alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free [NBP2-34760] - Livers were harvested at 9 wpi, formalin-fixed, and then cryosectioned and stained for markers of inflammation and liver fibrosis. Maximum intensity projections of 12-17 um thick liver sections with immunofluorescently labeled nuclei (DAPI white) alpha-smooth muscle actin NBP2-34760APC (yellow), CD45 (red) and Collagen I NB600-408 (top) or Collagen III/COL3A1 NB600-594 (bottom) (blue) in the liver of uninfected or 9 wpi WT mice. Scale bars represent 50 um. Image collected and cropped by CiteAb from the following publication ([//pubmed.ncbi.nlm.nih.gov/32973293/](https://pubmed.ncbi.nlm.nih.gov/32973293/)) licensed under a CC-BY license.



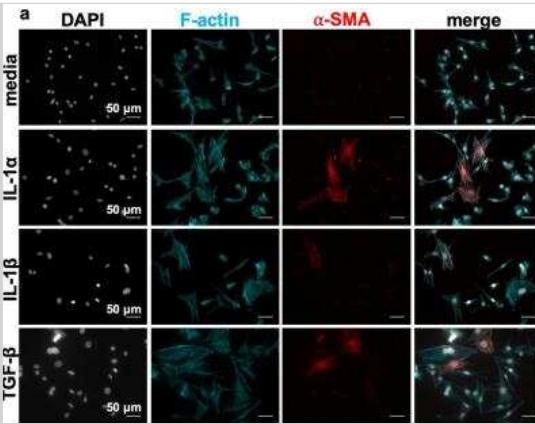
Flow (Intracellular): alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free [NBP2-34760] - An intracellular stain was performed on HeLa cells with alpha-Smooth Muscle Actin Antibody (SPM332) NBP2-34760APC (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to allophycocyanin. Image from the Allophycocyanin version of this antibody.



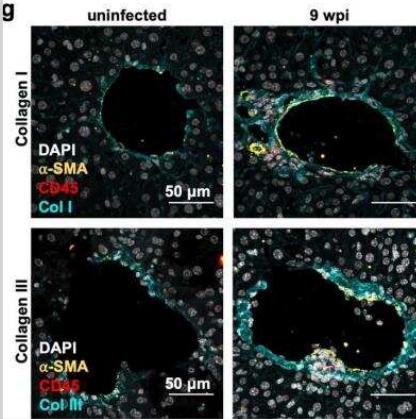
Immunohistochemistry-Paraffin: alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free [NBP2-34760] - Azide and BSA Free [NBP2-34760] - Staining analysis of paraffin-embedded Leiomyosarcoma using alpha-Smooth Muscle Actin Antibody (SPM332).



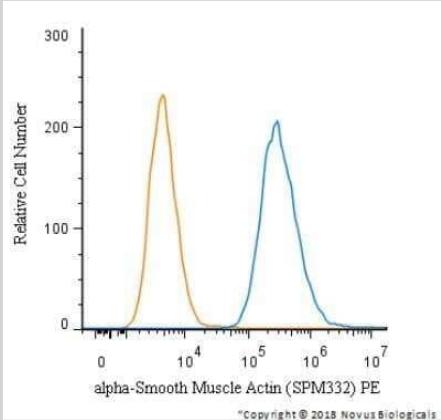
Immunohistochemistry: alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free [NBP2-34760] - IL-1 induces contractility and alpha smooth muscle actin expression in murine embryonic fibroblasts and primary hepatic stellate cells. MEFs were incubated with media, 10 ng/mL IL-1 alpha, 150 pg/mL IL-1 beta or 10 ng/mL TGFbeta-1 for 48 h. After fixation, MEFs were stained for F-actin, and alpha-smooth muscle actin (NBP2-34760APC). Image collected and cropped by CiteAb from the following publication ([//pubmed.ncbi.nlm.nih.gov/32973293/](https://pubmed.ncbi.nlm.nih.gov/32973293/)) licensed under a CC-BY license.



Immunohistochemistry: alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free [NBP2-34760] - Livers were harvested at 9 wpi, formalin-fixed, and then cryosectioned and stained for markers of inflammation and liver fibrosis. Maximum intensity projections of 12-17 μm thick liver sections with immunofluorescently labeled nuclei (DAPI white) alpha-smooth muscle actin NBP2-34760APC (yellow), CD45 (red) and Collagen1 alpha (top) or Collagen III (bottom) (blue) in the liver of uninfected or 9 wpi WT mice. Scale bars represent 50 μm. Image collected and cropped by CiteAb from the following publication ([//pubmed.ncbi.nlm.nih.gov/32973293/](https://pubmed.ncbi.nlm.nih.gov/32973293/)) licensed under a CC-BY license.



Flow (Intracellular): alpha-Smooth Muscle Actin Antibody (SPM332) - Azide and BSA Free [NBP2-34760] - An intracellular stain was performed on HeLa cells with alpha-Smooth Muscle Actin Antibody (SPM332) NBP2-34760PE (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Phycoerythrin.



Publications

Arebro J, Towle R, Lee CM et al. Extracellular vesicles promote activation of pro-inflammatory cancer-associated fibroblasts in oral cancer *Frontiers in cell and developmental biology* 2023-09-07 [PMID: 37745296] (FLOW, Human)



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Products Related to NBP2-34760-0.1mg

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96981-0.5mg	Mouse IgG2a Kappa Isotype Control (M2AK)
H00000059-P01-10ug	Recombinant Human alpha-Smooth Muscle Actin GST (N-Term) Protein

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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