

# Product Datasheet

## alpha-Smooth Muscle Actin Antibody (SPM332) NBP2-32808-0.1mg

Unit Size: 0.1 mg

Store at 4C.

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**NBP2-32808-0.1mg**

alpha-Smooth Muscle Actin Antibody (SPM332)

Product Information	
Unit Size	0.1 mg
Concentration	0.2 mg/ml
Storage	Store at 4C.
Clonality	Monoclonal
Clone	SPM332
Preservative	0.05% Sodium Azide
Isotype	IgG2a Kappa
Purity	Protein A or G purified
Buffer	10 mM PBS with 0.05% BSA
Target Molecular Weight	42 kDa

Product Description	
Description	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0 mg/ml. (NBP2-34760)  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
Recommended Dilutions	Western Blot 0.5-1ug/ml, Flow Cytometry 0.5-1ug/million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1-2 ug/ml, Immunohistochemistry-Paraffin 1-2 ug/ml, Flow (Intracellular)

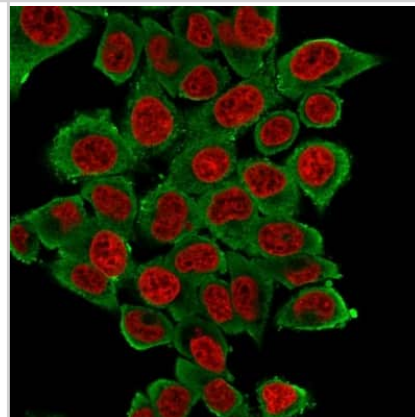


**Application Notes**

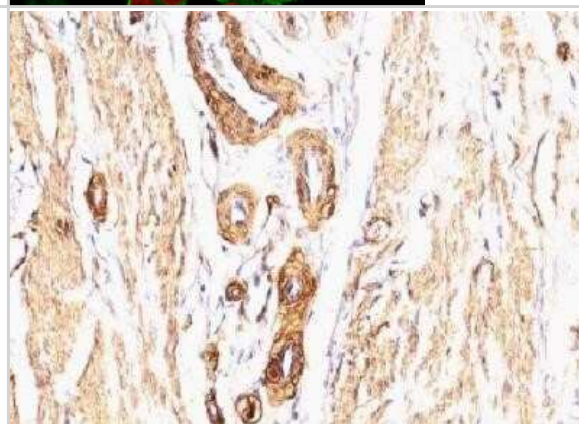
Immunohistochemistry (Formalin-fixed): 1-2ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined.

**Images**

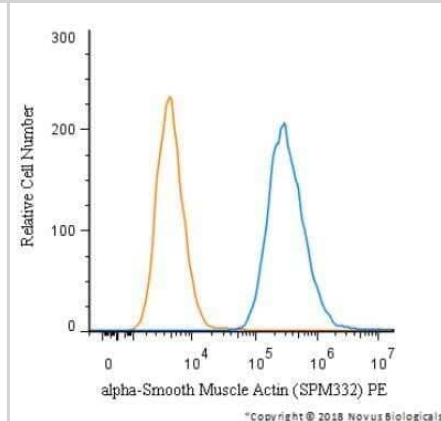
Immunocytochemistry/Immunofluorescence: alpha-Smooth Muscle Actin Antibody (SPM332) [NBP2-32808] - Immunofluorescence Analysis of HeLa cells labeling Smooth Muscle Actin with alpha-Smooth Muscle Actin Antibody (SPM332) followed by Goat anti-Mouse IgG-CF488 (Green). The nuclear counterstain is NucSpot (Red).



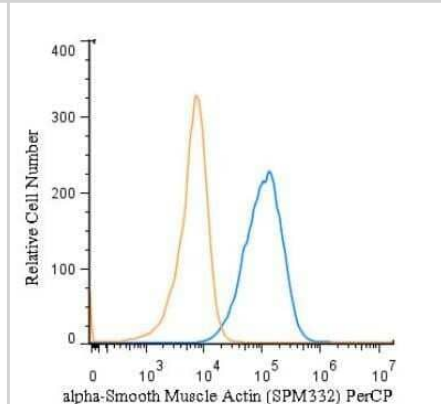
Immunohistochemistry-Paraffin: alpha-Smooth Muscle Actin Antibody (SPM332) [NBP2-32808] - Staining of paraffin-embedded Leiomyosarcoma using the Azide and BSA-Free version of alpha-Smooth Muscle Actin (SPM332) Antibody.



Flow (Intracellular): alpha-Smooth Muscle Actin Antibody (SPM332) [NBP2-32808] - 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.



Flow (Intracellular): alpha-Smooth Muscle Actin Antibody (SPM332) [NBP2-32808] - An intracellular stain was performed on HeLa cells with alpha-Smooth Muscle Actin Antibody (SPM332) NBP2-34760PCP (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 PerCP. Image from the PerCP version of this antibody.



## Publications

Sulaiman R, De P, Aske J et al. Patient-Derived Primary Cancer-Associated Fibroblasts Mediate Resistance to Anti-Angiogenic Drug in Ovarian Cancers *Biomedicines* 2023-01-01 [PMID: 36672620] (FLOW, Human)

### Details:

Intracellular Flow

Fujita M, Tanaka N, Sakaguchi Y et al. Small caliber heparin loaded ultrafine microfiber woven graft achieved high patency rate in a preliminary study of canine carotid artery implantation *JVS Vasc Sci* 2021-10-07 [PMID: 34617041]

Melchor, S J, Hatter, J A Et al. *T. gondii* infection induces IL-1R dependent chronic cachexia and perivascular fibrosis in the liver and skeletal muscle. *Sci Rep* 2020-09-24 [PMID: 32973293] (FLOW, Human)

Yeh SI, Yu SH, Chu HS, et al. Pigment Epithelium-Derived Factor Peptide Promotes Corneal Nerve Regeneration: An In Vivo and In Vitro Study *Investigative ophthalmology & visual science* 2021-01-04 [PMID: 33481984]

Gremlich S, Roth-Kleiner M, Equey L et Al. Tenascin-C inactivation impacts lung structure and function beyond lung development *Sci Rep*. [PMID: 32198404] (FLOW, Mouse)

Kojima A, Sakaue T, Okazaki M et al. A simple mouse model of pericardial adhesions *J Cardiothorac Surg* 2019-06-28 [PMID: 31253183] (IHC-P, Mouse)

Sakaue T, Nakaoka H, Shikata F et al. Biochemical and histological evidence of deteriorated bioprosthetic valve leaflets: the accumulation of fibrinogen and plasminogen *Biol Open* 2018-08-08 [PMID: 30089611] (WB, Human)





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### **Products Related to NBP2-32808-0.1mg**

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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

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### **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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