

Product Datasheet

alpha-Smooth Muscle Actin Antibody (4A4) - BSA Free NBP2-22120

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NBP2-22120

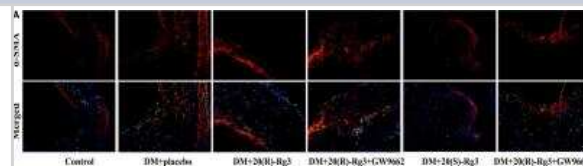
alpha-Smooth Muscle Actin Antibody (4A4) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4A4
Preservative	0.03% Sodium Azide
Isotype	IgG1
Purity	Unpurified
Buffer	Ascites
Target Molecular Weight	42 kDa
Product Description	
Host	Mouse
Gene ID	59
Gene Symbol	ACTA2
Species	Human, Mouse, Rat, Monkey
Reactivity Notes	Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any questions. Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-questions.
Marker	Mesenchymal Cell Marker
Immunogen	Synthesized peptide of human alpha-Smooth Muscle Actin.
Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500 - 1:2000, Flow Cytometry 1:200 - 1:400, ELISA 1:10000, Immunohistochemistry 1:200 - 1:1000, Immunocytochemistry/Immunofluorescence 1:200 - 1:1000, Immunohistochemistry-Paraffin 1:200 - 1:1000, Immunohistochemistry-Frozen
Application Notes	alpha-Smooth Muscle Actin antibody validated for IHC-Frozen from a verified customer review.

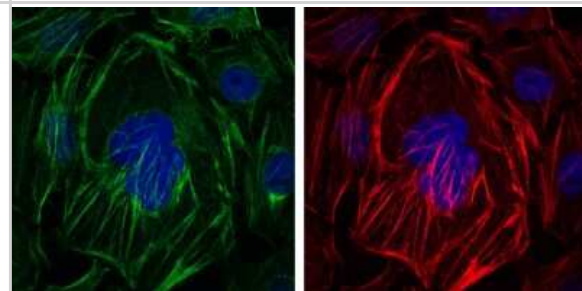


Images

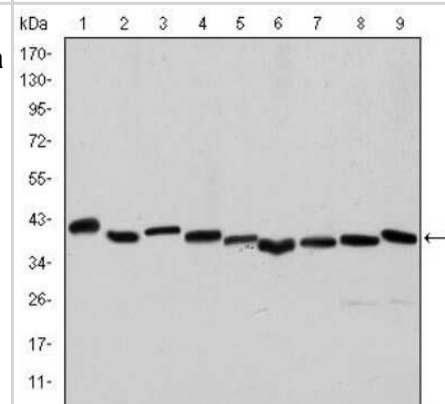
Immunohistochemistry: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Differential effects of the 20(R/S)-Rg3 stereoisomers on proliferation of VSMCs within plaques. A, Co-immunofluorescence staining of the aortic root for VSMCs (anti- α -SMA antibody, red) and proliferation marker PCNA (green) and DAPI (blue) Scale bar: 20 μ m. Image collected and cropped by CiteAb from the following publication (onlinelibrary.wiley.com/doi/10.1111/jcmm.13601) licensed under a CC-BY license.



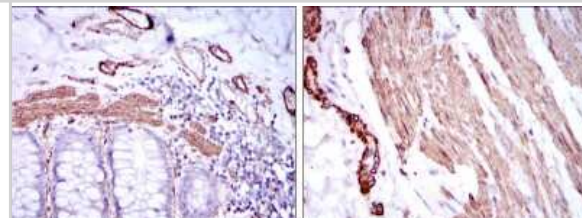
Immunocytochemistry/Immunofluorescence: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Analysis of HepG2 cells using (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Blue: DRAQ5 fluorescent DNA dye.



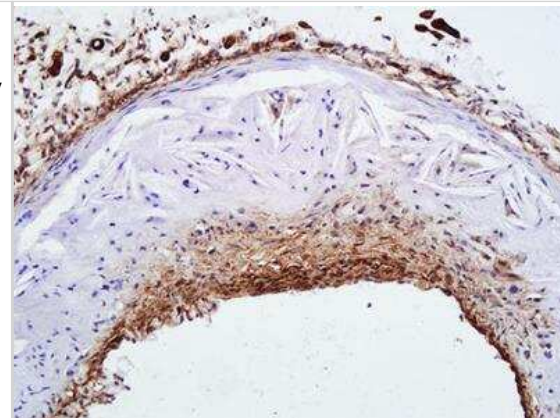
Western Blot: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Analysis using alpha-Smooth Muscle Actin Antibody (4A4) against Hela (1), A431 (2), Jurkat (3), K562 (4), HEK293 (5), HepG2 (6), NIH/3T3 (7), PC-12 (8) and Cos7 (9) cell lysate. The theoretical molecular weight of the antibody is 42 kDa.



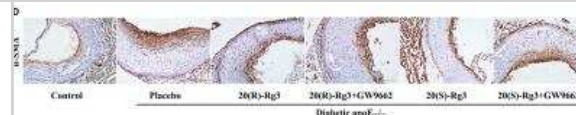
Immunohistochemistry-Paraffin: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Analysis of paraffin-embedded human duodenum tissues (left) and human esophagus tissues (right) using alpha-Smooth Muscle Actin Antibody (4A4) with DAB staining.



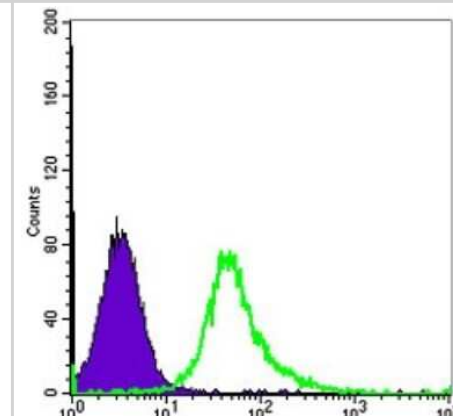
Immunohistochemistry-Frozen: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Representative immunohistochemical alpha-Smooth Muscle Actin staining of mouse aortic sinus. Image submitted by a verified customer review.



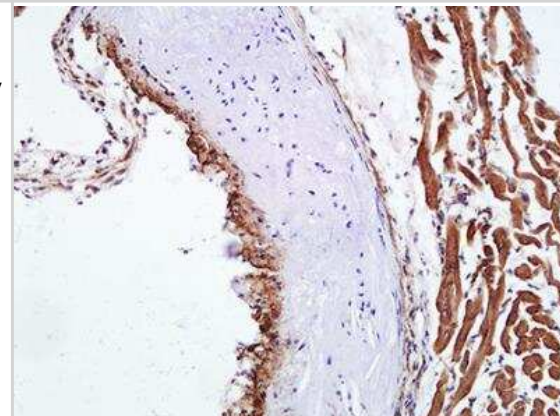
Immunohistochemistry: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Effects of the 20(R/S)-Rg3 stereoisomers on early atherogenesis in diabetic mice. D, F, Representative immunohistochemical a-SMA staining and quantification of the plaque smooth muscle cell content (n = 3). Scale bar: 50 um. Image collected and cropped by CiteAb from the following publication (onlinelibrary.wiley.com/doi/10.1111/jcmm.13601) licensed under a CC-BY license.



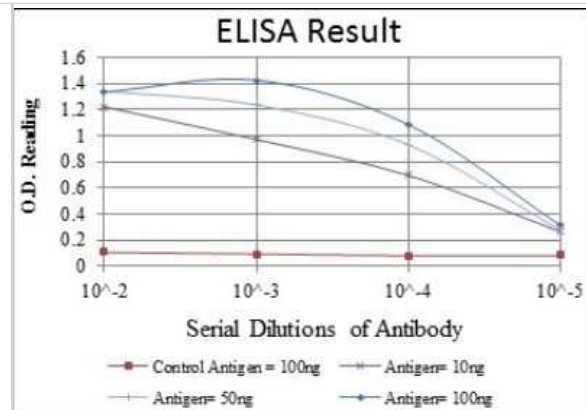
Flow Cytometry: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Analysis of Hela cells using alpha-Smooth Muscle Actin Antibody (4A4) (green) and negative control (purple).



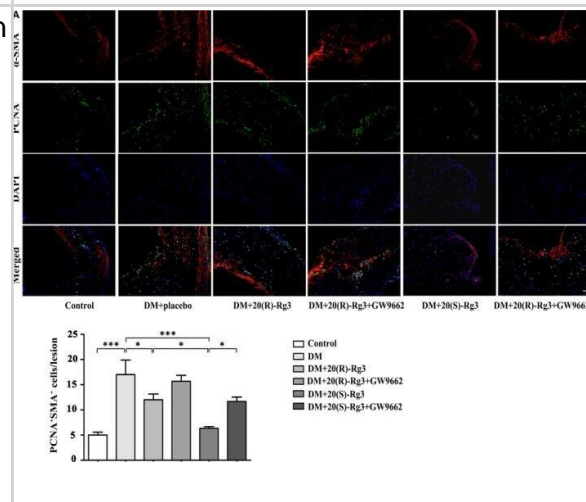
Immunohistochemistry-Frozen: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Representative immunohistochemical alpha-Smooth Muscle Actin staining of mouse aortic sinus. Image submitted by a verified customer review.



ELISA: alpha-Smooth Muscle Actin Antibody (4A4) [NBP2-22120] - Red: Control Antigen (100ng); Purple: Antigen (10ng); Green: Antigen (50ng); Blue: Antigen (100ng);



Immunocytochemistry/ Immunofluorescence: alpha-Smooth Muscle Actin Antibody (4A4) - BSA Free [NBP2-22120] - Differential effects of the 20 (R/S) Rg3 stereoisomers on proliferation of VSMCs within plaques. A, Co-immunofluorescence staining of the aortic root for VSMCs (anti- α -SMA antibody, red) & proliferation marker PCNA (green) & a bar graph summarizing the results (n = 3). Scale bar: 20 μ m. B, Western blot analysis of cyclin D1, cyclin E & PCNA protein expression within plaques. The bands are quantified by densitometric analysis. Protein expression of cyclin D1 & PCNA was normalized to β -actin, & expression of cyclin E was normalized to GAPDH (n = 3, 4, & 4 for cyclin D1, cyclin E & PCNA, respectively). The results are expressed as the mean values \pm SEM. *P < .05, **P < .01, ***P < .001 Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29566305>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Chun-Shan Liu, Inmaculada Rioja, Ali Bakr, Marlon R Veldwijk, Elena Sperk, Carsten Herskind, Dieter Weichenhan, Rab K Prinjha, Christoph Plass, Peter Schmezer, Odilia Popanda Selective inhibitors of bromodomain BD1 and BD2 of BET proteins modulate radiation-induced profibrotic fibroblast responses. *International journal of cancer* 2022-07-15 [PMID: 35239184]

Chakrabarti J, Holokai L, Syu L et al. Hedgehog signaling induces PD-L1 expression and tumor cell proliferation in gastric cancer. *Oncotarget* 2018-12-21 [PMID: 30647844]

Cheng S, Zou Y, Zhang M et al. Single-cell RNA sequencing reveals the heterogeneity and intercellular communication of hepatic stellate cells and macrophages during liver fibrosis *MedComm (2020)* 2023-09-17 [PMID: 37724132]

Peng L, Jin X, He Q et al. Remodelling landscape of tissue-engineered bladder with porcine small intestine submucosa using single-cell RNA sequencing *Cell proliferation* 2022-09-30 [PMID: 36177893] (IF/IHC, Mouse)

Kamothi DJ, Kant V, Jangir BL et al. Novel preparation of bilirubin-encapsulated pluronic F-127 nanoparticles as a potential biomaterial for wound healing *European journal of pharmacology* 2022-03-15 [PMID: 35151648] (IHC-P, Rat)

Kant V, Jangir BI, Sharma M Et Al. Topical application of quercetin improves wound repair and regeneration in diabetic rats *Immunopharmacology and immunotoxicology* 2021-07-19 [PMID: 34278923]

Choudhary A, Kant V, Jangir BL, Joshi VG Quercetin loaded chitosan tripolyphosphate nanoparticles accelerated cutaneous wound healing in Wistar rats *Eur. J. Pharmacol.* 2020-05-11 [PMID: 32407724] (IF/IHC, Rat)

Zhou P, Zhang X, Guo M et al. Ginsenoside Rb1 ameliorates CKD-associated vascular calcification by inhibiting the Wnt/beta-catenin pathway *J. Cell. Mol. Med.* 2019-08-19 [PMID: 31423730] (WB, Rat)

Jensen T, Wanczyk H, Sharma I et al. Polyurethane scaffolds seeded with autologous cells can regenerate long esophageal gaps: An esophageal atresia treatment model. *J Pediatr Surg.* 2018-10-22 [PMID: 30429066] (ICC/IF)

Details:

Citation using the Azide and BSA Free form of this antibody.

Guo M, Guo G, Xiao J et al. Ginsenoside Rg3 stereoisomers differentially inhibit vascular smooth muscle cell proliferation and migration in diabetic atherosclerosis. *J Cell Mol Med* 2018-06-01 [PMID: 29566305] (Mouse)





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Products Related to NBP2-22120

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
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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