

Product Datasheet

alpha-Smooth Muscle Actin Antibody (1A4/asm-1) [Alexa Fluor® 647] NBP2-34522AF647

Unit Size: 0.1 ml

Store at 4C in the dark.

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NBP2-34522AF647

alpha-Smooth Muscle Actin Antibody (1A4/asm-1) [Alexa Fluor® 647]

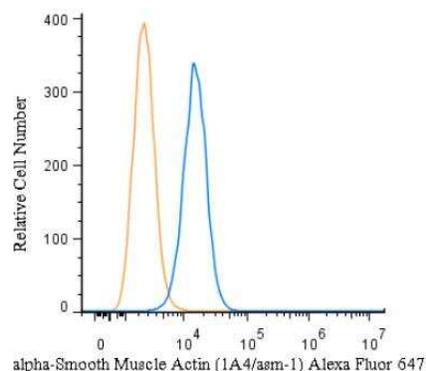
Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C in the dark.
Clonality	Monoclonal
Clone	1A4/asm-1
Preservative	0.05% Sodium Azide
Isotype	IgG2a Kappa
Conjugate	Alexa Fluor 647
Purity	Protein A purified
Buffer	50mM Sodium Borate
Target Molecular Weight	42 kDa
Product Description	
Host	Mouse
Gene ID	59
Gene Symbol	ACTA2
Species	Human, Mouse, Rat, Porcine, Bovine, Canine, Chicken, Feline, Guinea Pig, Goat, Monkey, Baboon, Rabbit, Sheep
Reactivity Notes	Feline reactivity reported from a verified customer review.
Marker	Leiomyosarcoma Marker
Specificity/Sensitivity	Actin is a major component of the cytoskeleton and is present in most cell types. This MAb is highly specific to actin from smooth muscles. Its epitope lies in the first four N-terminal amino acids. This MAb 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	Alpha-Smooth Muscle Actin Antibody (1A4/asm-1) is made to the N-Terminal decapeptide of Alpha smooth muscle isoform of actin and conjugated to KLH.

Notes	Alexa Fluor (R) products are provided under an intellectual property license from Life Technologies Corporation. The purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment; (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com . This conjugate is made on demand. Actual recovery may vary from the stated volume of this product. The volume will be greater than or equal to the unit size stated on the datasheet.
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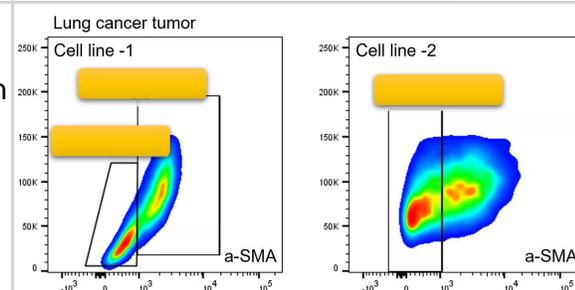
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, CyTOF-ready
Recommended Dilutions	Western Blot, Simple Western, Flow Cytometry, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen, Flow (Intracellular), CyTOF-ready
Application Notes	Optimal dilution of this antibody should be experimentally determined.

Images

An intracellular stain was performed on HeLa cells with alpha-Smooth Muscle Actin Antibody (1A4/asm-1) NBP2-34522AF647 (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 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



Flow Cytometry: alpha-Smooth Muscle Actin Antibody (1A4/asm-1) - BSA Free [NBP2-33006] - Analysis using two lung cancer cell lines to acquire the subcutaneous tumors. MMT status of macrophages was then analyzed. Image from a verified customer review.



Publications

Medzikovic L, Aryan L, Ruffenach G et al. Myocardial fibrosis and calcification are attenuated by microRNA-129-5p targeting Asporin and Sox9 in cardiac fibroblasts JCI insight 2023-05-08 [PMID: 37154157]

Bowler MA, Bersi MR, Ryzhova LM et al. Cadherin-11 as a regulator of valve myofibroblast mechanobiology. Am J Physiol Heart Circ Physiol. 2018-12-01 [PMID: 30359089]

Details:

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

Kim DK, Jeong J, Lee DS Et al. PD-L1-directed PIGF/VEGF blockade synergizes with chemotherapy by targeting CD141(+) cancer-associated fibroblasts in pancreatic cancer Nat Commun 2022-10-22 [PMID: 36272973] (FLOW, Mouse)

Details:

Citation using the HRP version of this antibody.

Varn FS, Johnson KC, Martinek J Et al. Glioma progression is shaped by genetic evolution and microenvironment interactions Cell 2022-06-01 [PMID: 35649412] (IHC-P, Human)

Details:

Citation using the Alexa Fluor 647 version of this antibody.

Koopmans T, van Beijnum H, Roovers EF et al. Ischemic tolerance and cardiac repair in the spiny mouse (Acomys) NPJ Regen Med 2021-11-17 [PMID: 34789755]

Details:

Citation using the Alexa Fluor 647 format of this antibody.

GrUneboom A, Hawwari I, Weidner D et al. A network of trans-cortical capillaries as mainstay for blood circulation in long bones Nat Metab. 2019-02-01 [PMID: 31620676] (ICC/IF, Human)

Details:

Citation used the Alexa Fluor 647 format of this antibody.

Ruffenach G, Umar S, Vaillancourt M et al. Histological hallmarks and role of Slug/PIP axis in pulmonary hypertension secondary to pulmonary fibrosis EMBO Mol Med. 2019-09-01 [PMID: 31468711] (ICC/ICC/IF, Human, Rat)

Details:

Citation used the Alexa Fluor 647 format of this antibody.

Hirata Y, Aoki H, Shojima T et al. Activation of the AKT Pathway in the Ascending Aorta With Bicuspid Aortic Valve. Circ J. 2018-09-25 [PMID: 30089758] (ICC/IF, Human)

Guzy RD, Li L, Smith C et al. Pulmonary fibrosis requires cell-autonomous mesenchymal fibroblast growth factor (FGF) signaling J Biol Chem. 2017-06-23 [PMID: 28487375] (FLOW, Mouse)

Details:

Citation used the Alexa Fluor 647 format of this antibody.

Bloodworth NC, Clark CR, West JD et al. Bone Marrow-Derived Proangiogenic Cells Mediate Pulmonary Arteriole Stiffening via Serotonin 2B Receptor Dependent Mechanism. Circ Res. 2018-12-07 [PMID: 30566041] (IF/IHC, Mouse)

Details:

Citation used the Alexa Fluor 647 format of this antibody.



Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NBP2-34522AF647

NBP1-96981AF647	Mouse IgG2a Kappa Isotype Control (M2AK) [Alexa Fluor® 647]
H00000059-P01-10ug	Recombinant Human alpha-Smooth Muscle Actin GST (N-Term) Protein
DVE00	VEGF [HRP]
NBP2-66429	Mouse alpha-Smooth Muscle Actin ELISA Kit (Colorimetric)

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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