Product Datasheet

Stathmin-2/STMN2 Antibody - BSA Free
NBP1-49461

Unit Size: 0.1 mg

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

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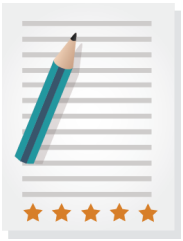
Updated 2/21/2025 v.20.1



NBP1-49461

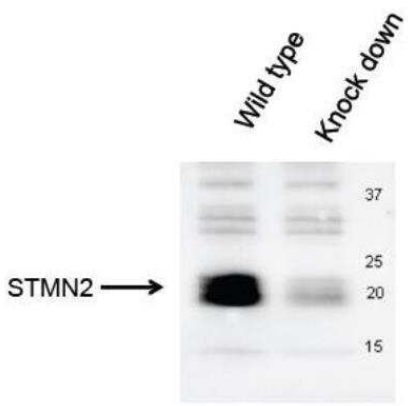
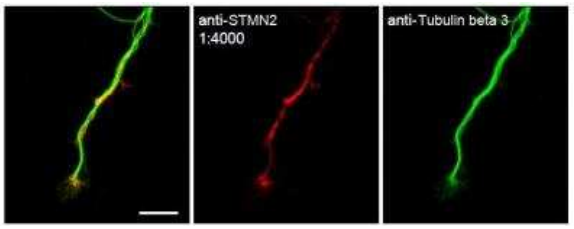
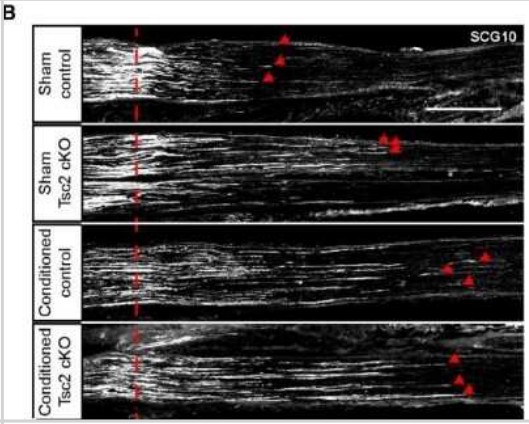
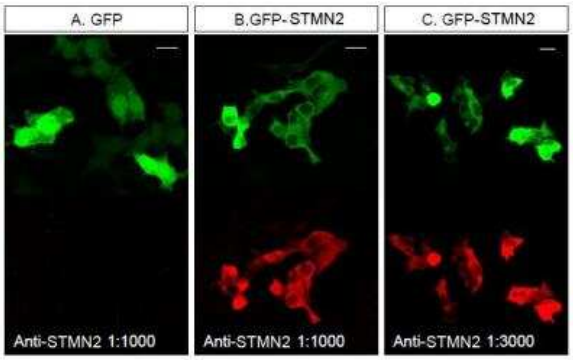
Stathmin-2/STMN2 Antibody - BSA Free

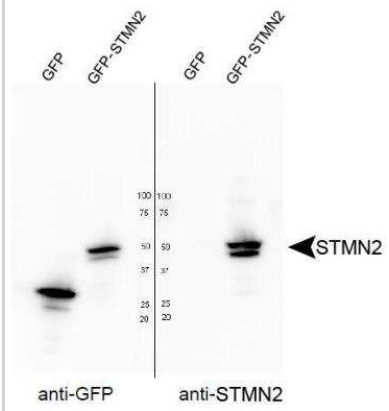
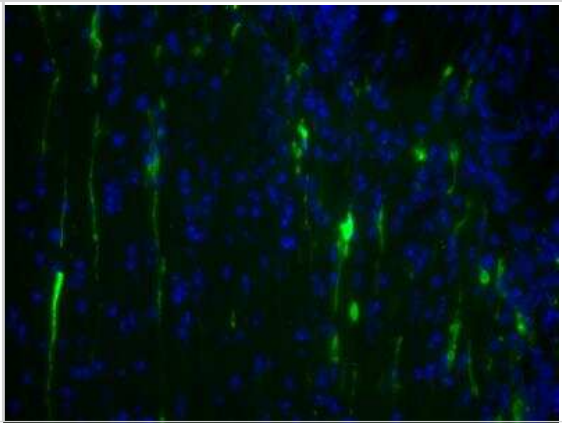
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	22 kDa

Product Description	
Host	Rabbit
Gene ID	11075
Gene Symbol	STMN2
Species	Human, Mouse, Rat, Bovine
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID:32778834).
Immunogen	C-terminal peptide of mouse STMN2. [Swiss-Prot P55821]

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, In vitro assay, In vivo assay, Immunohistochemistry Whole-Mount, Knockdown Validated
Recommended Dilutions	Western Blot 1 - 2 ug/ml, Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence 1 - 2 ug/ml, Immunohistochemistry-Paraffin reported in scientific literature (PMID 31182472), Immunohistochemistry-Frozen 1:200 - 1:500, In vitro assay reported in scientific literature (PMID 22726832), In vivo assay reported in scientific literature (PMID 22726832), Immunohistochemistry Whole-Mount reported in scientific literature (PMID 35042776), Knockdown Validated
Application Notes	In Western blot a band can be seen at ~22 kDa. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

Analysis of endogenous STMN2 in mouse dorsal root ganglia (DRG) neurons. A partial siRNA knockdown was used in the second lane. NBP1-49461 was used at a dilution of 1:1000. Image courtesy of Dr. Jung Eun Shin.	
Staining of STMN2 in primary mouse dorsal root ganglia (DRG) neurons Image shows the expected staining of endogenous STMN2 in axons and growth cones. Tubulin is a marker of axons. NBP1-49461 was used at a dilution of 1:4000. Image courtesy of Dr. Jung Eun Shin.	
Neuronal deletion of Tsc2 improves axon regeneration within the first 2 d following nerve injury. SCG10 immunostaining of sciatic nerves 1 d after crush injury in control and Tsc2 cKO mice with (conditioned) or without (sham) a conditioning injury. Red dotted line denotes the crush site while red arrowheads point to the three longest axons. Scale bar: 500 i1/4m. Image collected and cropped by Citeab from the following publication (Nociceptor Deletion of Tsc2 Enhances Axon Regeneration by Inducing a Conditioning Injury Response in Dorsal Root Ganglia. Eneuro (2019) licensed under a CC-BY license.	
Staining of STMN2 in HEK293T cells transfected with GFP or a GFP-STMN2 fusion. NBP1-49461 was used at a dilution of 1:1000 (A, B) and 1:3000 (C). Image courtesy of Dr. Jung Eun Shin.	

Analysis of STMN2 in HEK293T cells transfected with GFP or a GFP-STMN2 fusion. NBP1-49461 was used at a dilution of 1:4000. Image courtesy of Dr. Jung Eun Shin.	
Stathmin-2/STMN2 immunoreactivity at the trigeminal root entry zone (antibody diluted 1:1000, tissue taken from a mouse with experimental autoimmune encephalomyelitis). Image from verified customer review.	

Publications

Gobrecht P, Gebel J, Leibinger M, Zeitler C et Al. Cnicin promotes functional nerve regeneration Phytomedicine 2024-05-08 [PMID: 38718639]

Irune Guerra Guerra San Juan, Leslie A. Nash, Kevin S. Smith, Marcel F. Leyton-Jaimes, Menglu Qian, Joseph R. Klim et al. Loss of mouse Stmn2 function causes motor neuropathy Neuron 2022-05-01 [PMID: 35294901]

Au NPB, Wu T, Chen X, Gao F et Al. Genome-wide study reveals novel roles for formin-2 in axon regeneration as a microtubule dynamics regulator and therapeutic target for nerve repair Neuron 2023-12-12 [PMID: 38086376]

Sejvar JJ, Baughman AL, Wise M, Morgan OW. et Al. Population incidence of Guillain-Barré syndrome: a systematic review and meta-analysis Neuroepidemiology 2011-03-23 [PMID: 21422765]

Renk P, Sgodzai M, Klimas R, Blusch A et Al. Small fibre integrity and axonal pathology in the rat model of experimental autoimmune neuritis Brain Commun 2024-03-14 [PMID: 38482371]

Gobrecht P, Gebel J, Hilla A, Gisselmann G et Al. Targeting Vasohibins to Promote Axon Regeneration J Neurosci 2024-03-01 [PMID: 38429108]

Riemondy KA, Venkataraman S, Willard N et Al. Neoplastic and immune single-cell transcriptomics define subgroup-specific intra-tumoral heterogeneity of childhood medulloblastoma Neuro Oncol 2022-03-22 [PMID: 34077540]

Oh Y, Cho Y., et Al. Dipeptidyl peptidase 4 as an injury-responsive protein in the mouse sciatic nerve Mol Cells 2024-11-20 [PMID: 39577744]

Hertzog N, Duman M, Bochud M et Al. Hypoxia-induced conversion of sensory Schwann cells into repair cells is regulated by HDAC8 Nat Commun 2025-01-09 [PMID: 39779705]

Asghari Adib E, Shadrach JL, Reilly-Jankowiak L et Al. DLK signaling in axotomized neurons triggers complement activation and loss of upstream synapses Cell Rep 2024-03-07 [PMID: 38363678]

Lai, JD;Berlind, JE;Fricklas, G;Lie, C;Urenda, JP;Lam, K;Sta Maria, N;Jacobs, R;Yu, V;Zhao, Z;Ichida, JK; KCNJ2 inhibition mitigates mechanical injury in a human brain organoid model of traumatic brain injury Cell stem cell 2024-04-04 [PMID: 38579683]

Deininger S, Schumacher J, Blechschmidt A et al. Nerve injury converts Schwann cells in a long-term repair-like state in human neuroma tissue. Experimental neurology 2024-10-01 [PMID: 39362479]

More publications at http://www.novusbio.com/NBP1-49461

Procedures

Immunocytochemistry/ Immunofluorescence Protocol for Stathmin-2/STMN2 Antibody (NBP1-49461)
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and wash the cells briefly in PBS. Add 10% formalin to the dish and fix at room temperature for 10 minutes.
2. Remove the formalin and wash the cells in PBS.
3. Permeablize the cells with 0.1% Triton X100 or other suitable detergent for 10 min.
4. Remove the permeablization buffer and wash three times for 10 minutes each in PBS. Be sure to not let the specimen dry out.
5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
6. Add primary antibody at appropriate dilution and incubate overnight at 4C.
7. Remove primary antibody and replace with PBS. Wash three times for 10 minutes each.
8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove secondary antibody and replace with PBS. Wash three times for 10 minutes each.
10. Counter stain DNA with DAPi if required.

Immunohistochemistry-Paraffin Protocol for Stathmin-2/STMN2 Antibody (NBP1-49461)
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.

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Products Related to NBP1-49461

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-30285	Recombinant Human Stathmin-2/STMN2 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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