Product Datasheet

SMN Antibody (2B1) - BSA Free
NB100-1936

Unit Size: 0.1 ml

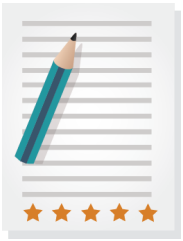
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 25

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-1936

Updated 9/9/2025 v.20.1



NB100-1936

SMN Antibody (2B1) - BSA Free

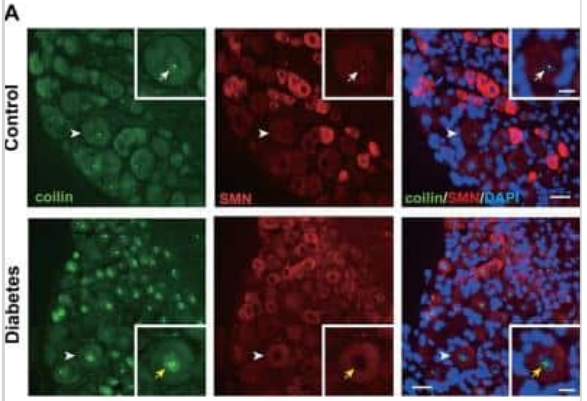
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	2B1
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	Tris-Glycine and 0.15M NaCl

Product Description	
Description	Novus Biologicals Mouse SMN Antibody (2B1) - BSA Free (NB100-1936) is a monoclonal antibody validated for use in IHC, WB, ELISA, Flow, ICC/IF and IP. Anti-SMN Antibody: Cited in 24 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	6606
Gene Symbol	SMN1
Species	Human, Mouse, Rat, Primate, Xenopus, Zebrafish
Reactivity Notes	Zebrafish reactivity reported in scientific literature (PMID: 27273160).
Immunogen	Purified recombinant His6-tagged human SMN protein. [Swiss-Prot# Q16637]

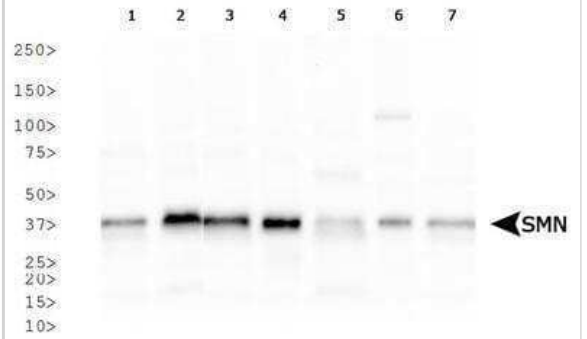
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 2 ug/ml, Flow Cytometry reported in scientific literature (PMID 30102724), ELISA reported in scientific literature (PMID 23973875), Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:250, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:200
Application Notes	This SMN Antibody (2B1) is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry on paraffin-embedded sections, Flow Cytometry, Immunoprecipitation, and Western blot where a band can be seen at ~ 35 kDa.

Images

Immunohistochemistry: SMN Antibody (2B1) [NB100-1936] - CBs lose their colocalization with SMN nuclear foci in diabetic mice. Normal and pathological distribution of SMN proteins in sensory neurons. SMN proteins were found throughout the cytoplasm and as nuclear foci in control sensory neurons. SMN nuclear foci localized within CBs (coilin) in controls (upper panels, white arrows), whereas in the diabetic nucleus the numerous CBs were present but lost their colocalization with SMN nuclear foci (lower panels, yellow arrows). Arrowheads indicate sensory neurons magnified in the insets. Scale bars: 20 um, 10 um in insets. Image collected and cropped by CiteAb from the following publication (https://dmm.biologists.org/lookup/doi/10.1242/dmm.028225), licensed under a CC-BY license.

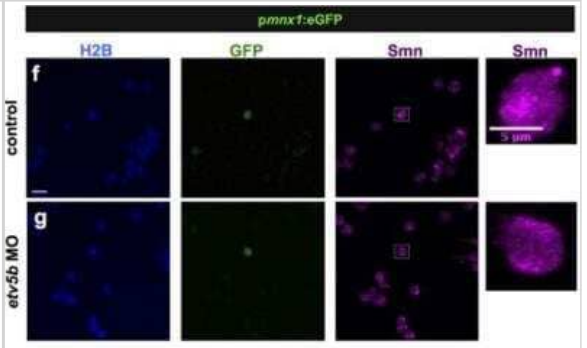


Western Blot: SMN Antibody (2B1) [NB100-1936] - Analysis of SMN expression in 1) HeLa, 2) NTera2, 3) HepG2, 4) MCF7, 5) NIH 3T3, 6) PC12, and 7) COS7 whole cell lysates.

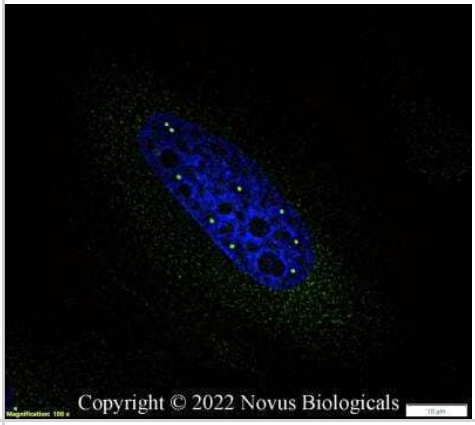


Immunocytochemistry/Immunofluorescence: SMN Antibody (2B1) [NB100-1936] - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti- NB100-1936 at 2 ug/ml overnight at 4C and detected with an anti-mouse Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.

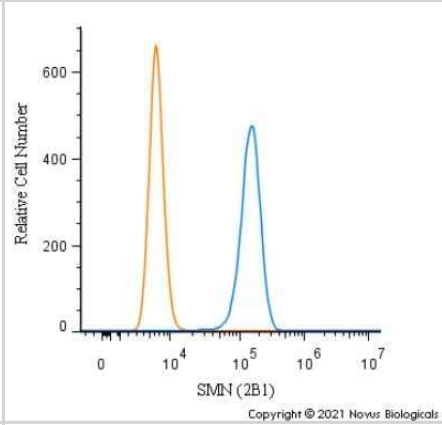
Immunocytochemistry/Immunofluorescence: SMN Antibody (2B1) [NB100-1936] - scIF of control (f) and etv5b MO (g) cells from pmnx1:eGFP embryos. H2B, GFP and Smn signals are shown in Z-projected confocal sections. GFP+ cells marked by white rectangles are magnified on the right. Scale bars: 10 um for low and 5 um for high magnification. Image collected and cropped by Citeab from the following publication (Transcriptional enhancement of Smn levels in motoneurons is crucial for proper axon morphology in zebrafish. Sci Rep (2016) licensed under a CC-BY license.



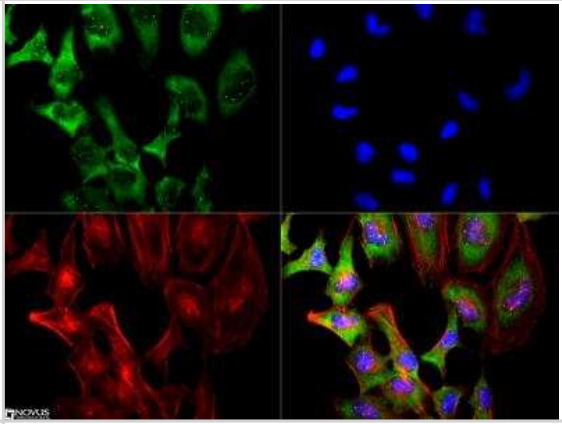
Immunocytochemistry/Immunofluorescence: SMN Antibody (2B1) [NB100-1936] - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with SMN Antibody [2B1] conjugated to Alexa Fluor 488 (NB100-1936AF488) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



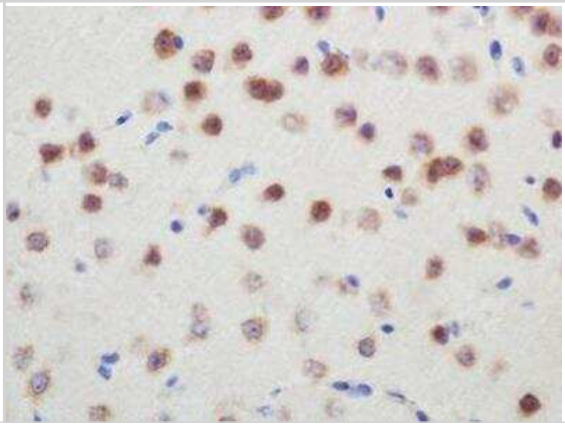
Flow Cytometry: SMN Antibody (2B1) [NB100-1936] - An intracellular stain was performed on Neuro2a cells with SMN Antibody (2B1) NB100-1936 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).



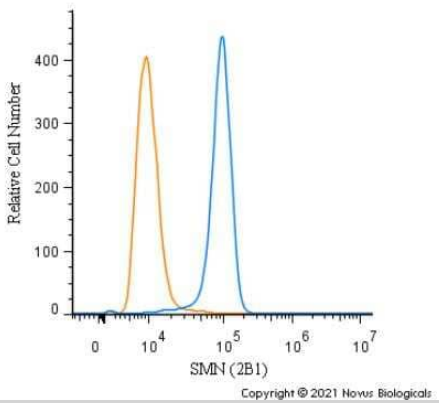
Immunocytochemistry/Immunofluorescence: SMN Antibody (2B1) [NB100-1936] - The SMN antibody was tested at a 1:250 dilution in HeLa cells against DyLight 488 (Green). Actin nuclei were counterstained against Phalloidin 568 (Red) and DAPI (Blue), respectively.



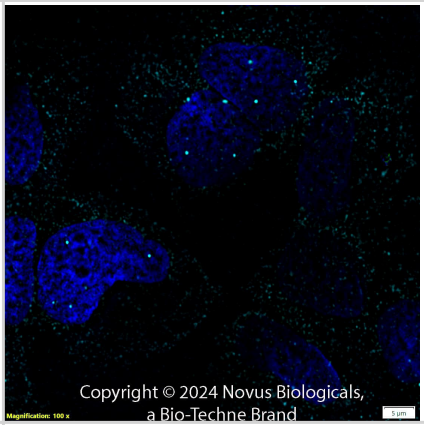
Immunohistochemistry: SMN Antibody (2B1) [NB100-1936] - Analysis of SMN on mouse brain using NB100-1936.



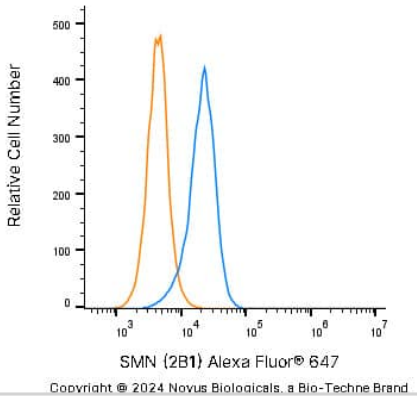
Flow Cytometry: SMN Antibody (2B1) [NB100-1936] - An intracellular stain was performed on Ntera2 cells with SMN Antibody (2B1) NB100-1936 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).



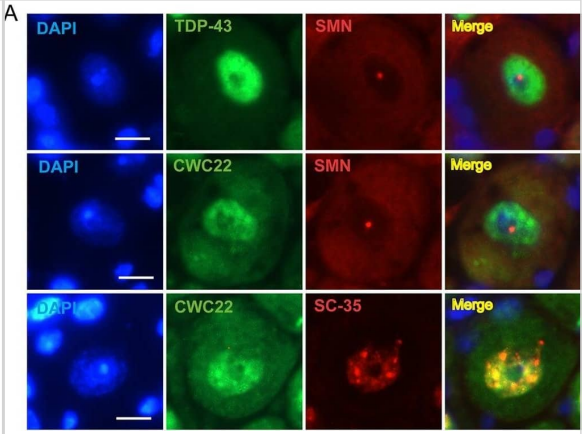
SMN (2B1) was detected in immersion fixed U-2 OS human osteosarcoma cell line using Mouse anti-SMN (2B1) Protein G Purified Monoclonal Antibody conjugated to Alexa Fluor® 647 (Catalog # NB100-1936AF647) (light blue) at 5 µg/mL overnight at 4C. Cells were counterstained with DAPI (dark blue). Cells were imaged using a 100X objective and digitally deconvolved.

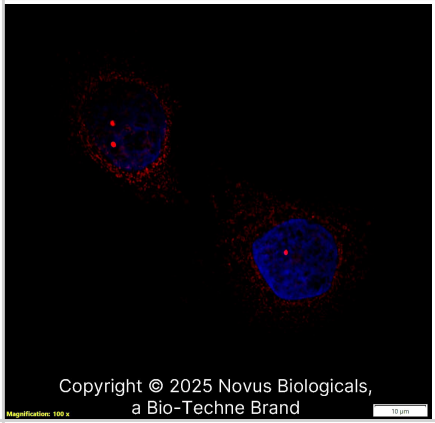
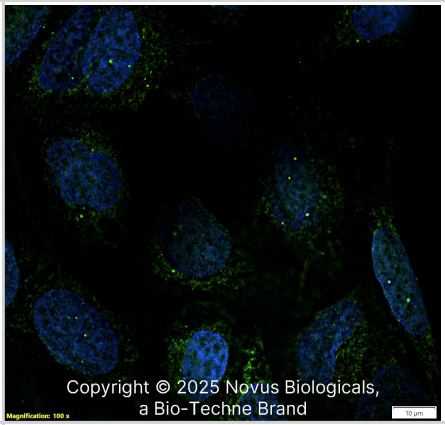
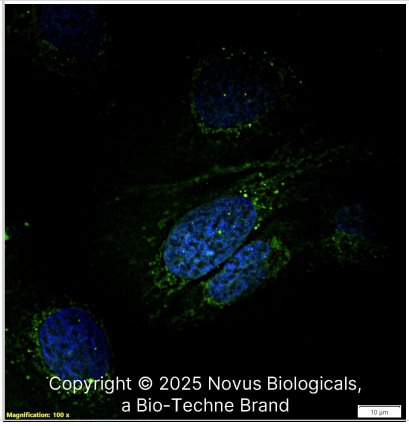


An intracellular stain was performed on A431 human skin carcinoma cell line using Mouse anti- SMN (2B1) Protein-G purified Monoclonal Antibody conjugated to Alexa Fluor® 647 (Catalog # NB100-1936AF647, blue histogram) or matched control antibody (orange histogram) at 2.5 µg/mL for 30 minutes at RT.



Immunocytochemistry/ Immunofluorescence: SMN Antibody (2B1) [NB100-1936] - CWC22 is colocalized with nuclear speckles & upregulated in diabetic DRG sensory neurons. (A) Subcellular distribution of TDP-43 & CWC22 in control DRG sensory neurons. TDP-43 was stained diffusely in the nucleus, excluding SMN foci in sensory neurons. CWC22 consistently colocalized with a marker protein SC35 of nuclear speckles in sensory neurons. No obvious differences in the subcellular localization of CWC22 were identified in diabetic neurons (not shown) compared with controls. Scale bar: 10 µm. (B) qRT-PCR analysis of Cwc22 mRNA expression in diabetic & control mice. Cwc22 expression was upregulated □2.5-fold in diabetic DRGs. *P<0.05, unpaired two-tailed Student's t-test. Data represented as mean±s.e.m. See Cheng et al. (2015) for microarray data indicating rises in Cwc22 expression as reported separately. Image collected & cropped by CiteAb from the following publication (https://journals.biologists.com/dmm/article/10/3/215/2257/Diabetic-polyneuropathy-sensory-neurons-nuclear), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



SMN (2B1) was detected in immersion fixed A431 human skin carcinoma cell line using Mouse anti-SMN (2B1) Protein G Purified Monoclonal Antibody conjugated to Biotin (Catalog # NB100-1936B) at 5 µg/mL overnight at 4C. Cells were stained using Streptavidin conjugated to DyLight 550 (red) and counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.	
SMN (2B1) was detected in immersion fixed U-2 OS human osteosarcoma cell line using Mouse anti-SMN (2B1) Protein G Purified Monoclonal Antibody conjugated to DyLight 488 (Catalog # NB100-1936G) (green) at 5 µg/mL overnight at 4C. Cells were counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.	
SMN (2B1) was detected in immersion fixed U-2 OS human osteosarcoma cell line using Mouse anti-SMN (2B1) Protein G Purified Monoclonal Antibody conjugated to FITC (Catalog # NB100-1936F) (green) at 5 µg/mL overnight at 4C. Cells were counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.	

Publications

Kawasaki K, Osafune T, Tamehira S, Yano K. Piglets can secrete acidic mammalian chitinase from the pre weaning stage. Scientific reports 2021-08-11 [PMID: 33446704]

Al-Hilal H, Maretina M, Egorova A et al. Quantification of the Number of Nuclear Gems as a Potential Biomarker for Spinal Muscular Atrophy preprints.org 2023-09-25 (IHC, Human)

Wu SH, Lu IC, Yang SM et al. Spinal Irisin Gene Delivery Attenuates Burn Injury-Induced Muscle Atrophy by Promoting Axonal Myelination and Innervation of Neuromuscular Junctions International journal of molecular sciences 2022-12-14 [PMID: 36555538] (WB, Rat)

Stewart LM, Gerner L, Rettel M Et al. CaMKK2 facilitates Golgi-associated vesicle trafficking to sustain cancer cell proliferation Cell death & disease 2021-11-01 [PMID: 34725334]

Nishibe M, Toyoda H, Hiraga SI Et al. Synaptic and Genetic Bases of Impaired Motor Learning Associated with Modified Experience-Dependent Cortical Plasticity in Heterozygous Reeler Mutants Cerebral cortex (New York, N.Y. : 1991) 2021-07-31 [PMID: 34339488] (IF/IHC, Mouse)

Otsuki N, Arakawa R, Kaneko K et al. A new biomarker candidate for spinal muscular atrophy: Identification of a peripheral blood cell population capable of monitoring the level of survival motor neuron protein PLoS ONE. 2018-08-13 [PMID: 30102724] (FLOW, Human)

Details:
Citation using the Alexa Fluor 488 form of this antibody.

Chen HY, Lin YN, Chen WC et al. Urethral proteomic analysis in ovariectomized mice administered 17b-oestradiol replacement therapy. J Obstet Gynaecol. 2017-03-28 [PMID: 28350532] (Mouse)

Kobayashi M, Chandrasekhar A, Cheng C et al. Diabetic polyneuropathy, sensory neurons, nuclear structure and spliceosome alterations: a role for CWC22. Dis Model Mech. 2017-03-01 [PMID: 28250049]

Spiro Z, Koh A, Tay S et al. Transcriptional enhancement of Smn levels in motoneurons is crucial for proper axon morphology in zebrafish. Sci Rep 2016-06-09 [PMID: 27273160] (ICC/IF, Zebrafish)

Details:
This publication used the AF647 conjugated form of this antibody (NB100-1936AF647)

Kassim SH, Jordan J, Schreiter J et al. Systematic identification of novel SLE related autoantibodies responsible for type I IFN production in human plasmacytoid dendritic cells. Cell Immunol. 2013-08-06 [PMID: 23973875] (ELISA, Human)

Yong J, Golembe TJ, Battle DJ, Pellizzoni L, Dreyfuss G. snRNAs contain specific SMN-binding domains that are essential for snRNP assembly. Mol Cell Biol;24(7):2747-56. 2004-04-01 [PMID: 15024064] (IP, WB, Xenopus, Human)

Nelson PT, Hatzigeorgiou AG, Mourelatos Z. miRNP:mRNA association in polyribosomes in a human neuronal cell line. RNA. 2004-03-01 [PMID: 14970384] (WB, Human)

More publications at http://www.novusbio.com/NB100-1936

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 NB100-1936

NB800-PC1	HeLa Whole Cell Lysate
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)

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB100-1936

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications