

Product Datasheet

SMN Antibody (2B1) [Alexa Fluor® 647] NB100-1936AF647

Unit Size: 0.1 ml

Store at 4C in the dark.

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NB100-1936AF647

SMN Antibody (2B1) [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	2B1
Preservative	0.05% Sodium Azide
Isotype	IgG1
Conjugate	Alexa Fluor 647
Purity	Protein G purified
Buffer	50mM Sodium Borate

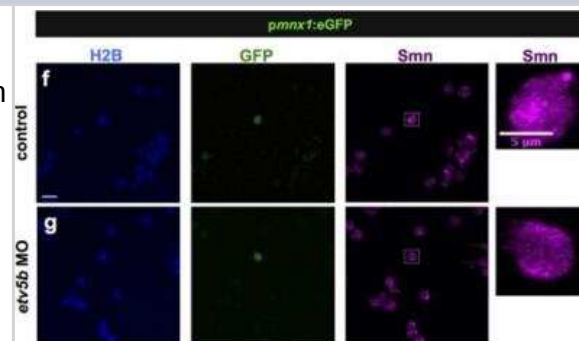
Product Description	
Host	Mouse
Gene ID	6606
Gene Symbol	SMN1
Species	Human, Mouse, Rat, Primate, Xenopus, Zebrafish
Reactivity Notes	Zebrafish reactivity reported in scientific literature (PMID: 27273160).
Immunogen	Purified recombinant His6-tagged human SMN protein. [Swiss-Prot# Q16637]
Notes	Alexa 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.

Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot, Flow Cytometry, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin
Application Notes	Optimal dilution of this antibody should be experimentally determined.

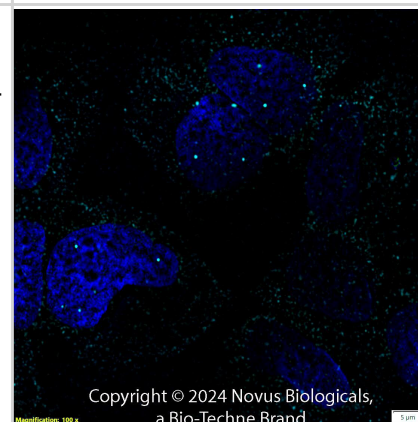


Images

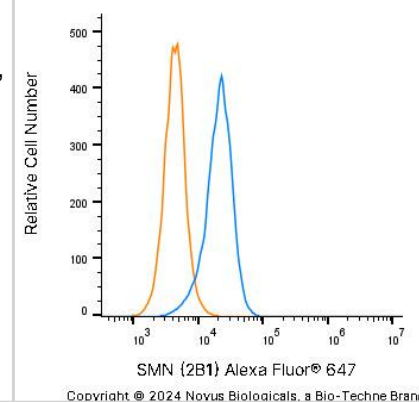
Immunocytochemistry/Immunofluorescence: SMN Antibody (2B1) [Alexa Fluor® 647] [NB100-1936AF647] - scIF of control (f) and *etv5b* MO (g) cells from *pmnx1:eGFP* embryos. H2B, GFP and Smn signals are shown in Z-projected confocal sections. GFP+ cells marked by white rectangles are magnified on the right. Scale bars: 10 μ m for low and 5 μ m 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.



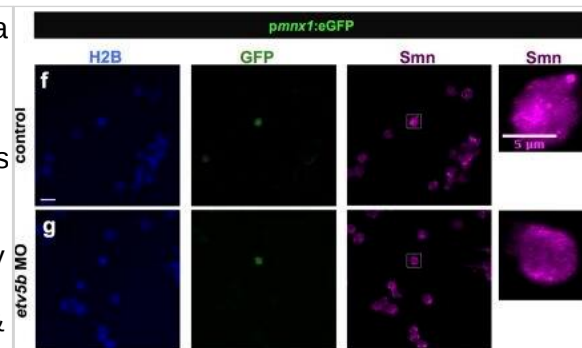
SMN (2B1) was detected in immersion fixed U-2 OS human osteosarcoma cell line using Mouse anti-SMN (2B1) Protein G Purified Monoclonal Antibody conjugated to Alexa Fluor® 647 (Catalog # NB100-1936AF647) (light blue) at 5 μ g/mL overnight at 4C. Cells were counterstained with DAPI (dark blue). Cells were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



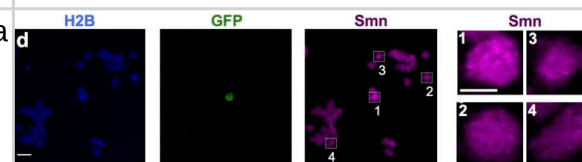
An intracellular stain was performed on A431 human skin carcinoma cell line using Mouse anti- SMN (2B1) Protein-G purified Monoclonal Antibody conjugated to Alexa Fluor® 647 (Catalog # NB100-1936AF647, blue histogram) or matched control antibody (orange histogram) at 2.5 μ g/mL for 30 minutes at RT.



Immunocytochemistry/ Immunofluorescence: SMN Antibody (2B1) [Alexa Fluor® 647] [NB100-1936AF647] - Etv5b activates the smn promoter leading to increased Smn levels in motoneurons. (a–d) Whole-mount in situ hybridization of *etv5b* expression in 24 hpf embryos. Expression pattern in the entire embryo (a), in magnified lateral (b) & dorsal (c) views as well as in a transverse section (d) of the trunk. In the latter case, yellow arrowhead denote signal in the motoneuron region. Scale bars: 100 μ m (a) & 50 μ m (b–d). nc, notochord. (e) RT-PCR in control (C - only *psmn:mCherry*) versus *etv5b* overexpressing (OE - *etv5b* mRNA & *psmn:mCherry*) embryos at early gastrula stage. (f,g) scIF of control (f) & *etv5b* MO (g) cells from *pmnx1:eGFP* embryos. H2B, GFP & Smn signals are shown in Z-projected confocal sections. GFP+ cells marked by white rectangles are magnified on the right. Scale bars: 10 μ m for low & 5 μ m for high magnification. (h) Relative Smn signal in control & in *etv5b* MO cells from one representative experiment. Exact values are (mean $\pm$ SD): 0.99 ± 0.25 (control) & 0.7 ± 0.14 (*etv5b* MO), $p = 0.003$ with Wilcoxon Sum Rank Test. (i) Average relative Smn levels in control & in *etv5b* MO motoneurons. The exact value of decrease is 0.75 ± 0.04 (mean $\pm$ SD). $N = 3$ experiments, n = number of analyzed cells. Image collected & cropped by CiteAb from the following publication (<https://www.nature.com/articles/srep27470>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: SMN Antibody (2B1) [Alexa Fluor® 647] [NB100-1936AF647] - Motoneurons exhibit elevated Smn levels. (a–c) Single-cell immunofluorescent (scIF) experiments. 24 hpf *pmnx1:eGFP* embryos were dissociated & immunostained for Smn ((a) see also Methods). DIC image of cells following 3-hour (b) & 24-hour (c) incubation are shown with GFP in green. Note that the GFP signal in the cell body is oversaturated so that the weaker signal in the axon becomes visible. In (c) DNA is in blue & the motoneuron marker Znp1 (synaptotagmin) is in red; the axon growth cone is magnified in the corner of the images. Scale bars are 100 μ m (a), 10 μ m (low magnification in (b,c)) & 2 μ m (high magnification in (c)). (d) scIF on *pmnx1:eGFP* embryos. Histone 2B (H2B), GFP & Smn signals are shown in Z-projected confocal sections. Cells marked by white rectangles are magnified on the right. Scale bars: 10 μ m for low & 5 μ m for high magnification. (e) To account for potential variability in the immunostaining, Smn levels were quantified relative to H2B. Diamonds denote GFP negative (GFP–) & GFP positive (GFP+) cells from one representative experiment. Blue bars indicate mean $\pm$ SD with significance values of * $p < 0.05$ & ** $p < 0.01$. Exact values are (mean $\pm$ SD) 0.51 ± 0.14 (GFP–) & 0.87 ± 0.17 (GFP+), $p = 0.001$ with Wilcoxon Sum Rank Test. For more details, see Materials & Methods & Supplementary Table S1. (f) Average increase of Smn levels in motoneurons versus control cells. The exact value of enrichment is (mean $\pm$ SD): 1.67 ± 0.14 . $N = 3$ experiments, n = number of analyzed cells. Image collected & cropped by CiteAb from the following publication (<https://www.nature.com/articles/srep27470>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

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)



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Products Related to NB100-1936AF647

NBP1-97005AF647	Mouse IgG1 Isotype Control (MG1) [Alexa Fluor® 647]
NB100-1936AF700	SMN Antibody (2B1) [Alexa Fluor® 700]
NBP3-17675PEP	SMN Recombinant Protein Antigen
233-FB-025	FGF basic/FGF2/bFGF [Unconjugated]

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