

Product datasheet for **TA336277**

SMN1 Mouse Monoclonal Antibody [Clone ID: 2B1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	2B1
Applications:	ELISA, FC, ICC/IF, IHC, IP, WB
Recommended Dilution:	Immunohistochemistry, Immunocytochemistry/ Immunofluorescence: 1:250, Immunoprecipitation: 1:10-1:500, Western Blot: 2 ug/ml, Immunohistochemistry-Paraffin: 1:200, ELISA, Flow Cytometry
Reactivity:	Human, Mouse, Rat, Primate, Xenopus
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified recombinant His6-tagged human SMN protein. [Swiss-Prot# Q16637]
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at - 20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	survival of motor neuron 1, telomeric
Database Link:	NP_075012 Entrez Gene 20595 Mouse Entrez Gene 64301 Rat Entrez Gene 6606 Human Q16637



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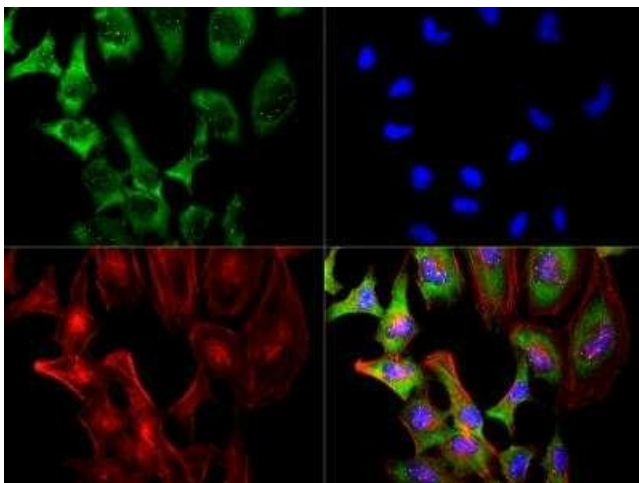
Background: Spinal muscular atrophy (SMA) is a common fatal autosomal recessive disorder characterized by the degeneration of motor neurons and muscular atrophy. A gene called Survival of Motor Neurons (SMN) has been identified as the determining gene in SMA and is deleted or mutated in greater than 98% of SMA patients. The SMN protein localizes to both the cytoplasm and the nucleus. In the nucleus, SMN has been found to localize in a nuclear structure termed gems for Gemini or coiled bodies, which contain high levels of small ribonucleoproteins (snRNPs). SMN forms complexes with proteins including SIP1, Gemin 2-7 and several others known to be involved in the biogenesis of snRNPs. SMN antibodies may serve as a useful research tool to study SMN complexes and gems, and their role in pre-RNA processing and RNA metabolism.

Synonyms: BCD541; GEMIN1; SMA; SMA1; SMA2; SMA3; SMA4; SMA@; SMN; SMNT; T-BCD541; TDRD16A

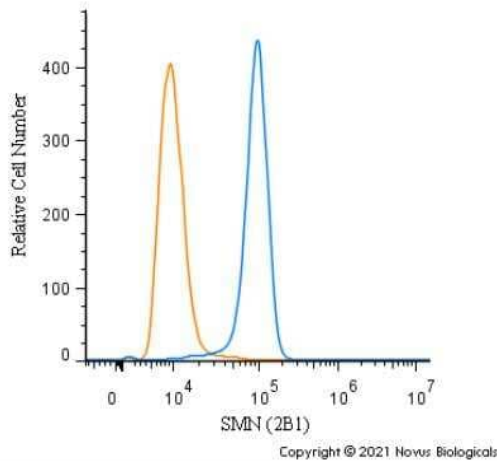
Note: This SMN Antibody (2B1) is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry on paraffin-embedded sections, Flow Cytometry, Immunoprecipitation and Western blot where a band can be seen at ~ 35 kDa. Use in ELISA reported in scientific literature (PMID 23973875)

Protein Families: Druggable Genome, Stem cell - Pluripotency

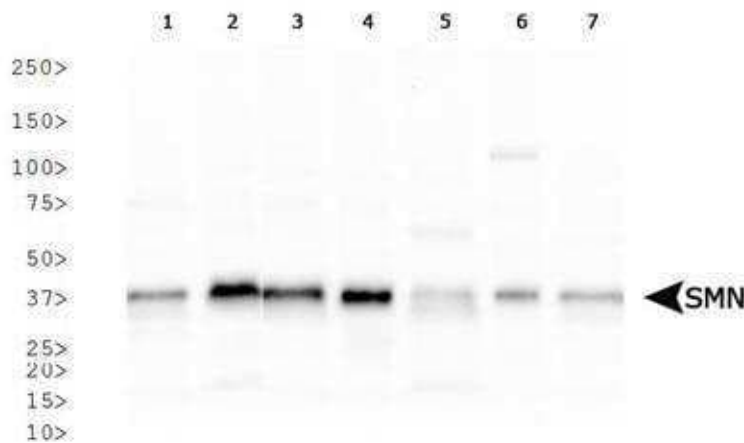
Product images:



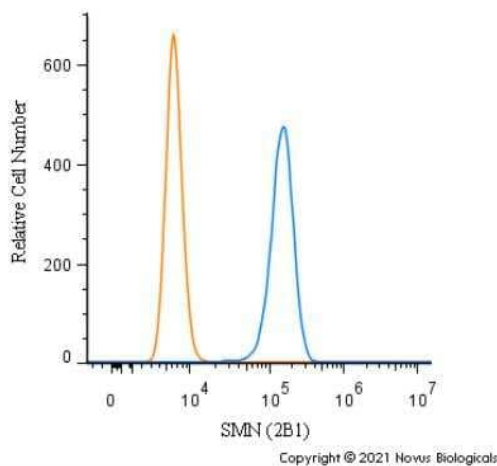
Immunocytochemistry/Immunofluorescence: SMN Antibody (2B1) TA336277 - The SMN antibody was tested at a 1:250 dilution in HeLa cells against DyLight 488 (Green). Actin nuclei were counterstained against Phalloidin 568 (Red) and DAPI (Blue), respectively.



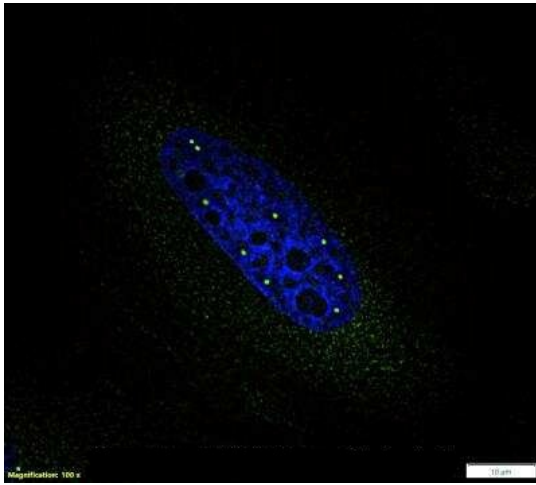
Flow Cytometry: SMN Antibody (2B1) TA336277 - An intracellular stain was performed on Ntera2 cells with SMN Antibody (2B1) TA336277 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).



Western Blot: SMN Antibody (2B1) TA336277 - Analysis of SMN expression in 1) HeLa, 2) Ntera2, 3) HepG2, 4) MCF7, 5) NIH 3T3, 6) PC12, and 7) COS7 whole cell lysates.



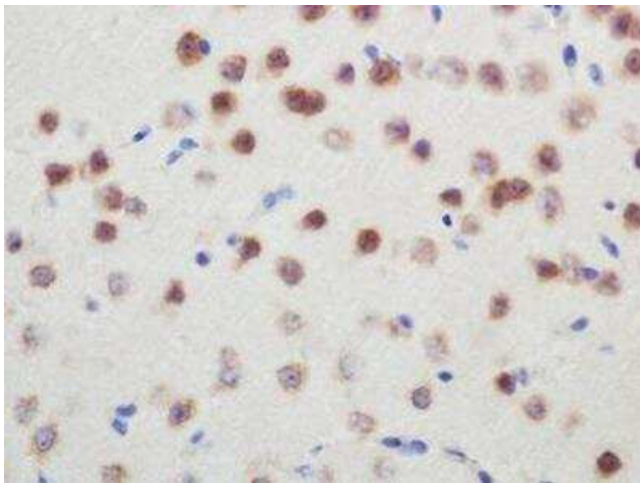
Flow Cytometry: SMN Antibody (2B1) TA336277 - An intracellular stain was performed on Neuro2a cells with SMN Antibody (2B1) TA336277 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 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) TA336277 - 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 (TA336277AF488) 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.



Immunocytochemistry/Immunofluorescence: SMN Antibody (2B1) TA336277 - 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-TA336277 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.



Immunohistochemistry: SMN Antibody (2B1) TA336277 - Analysis of SMN on mouse brain using TA336277.