Datasheet for ABIN968085

anti-SNRPN antibody (AA 14-174)

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Overview

Quantity:	50 µg
Target:	SNRPN
Binding Specificity:	AA 14-174
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SNRPN antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), BioImaging (BI), Immunohistochemistry (Formalin-fixed Sections) (IHC (f))

Product Details

Immunogen:	Human SMN aa. 14-174
Clone:	8-SMN
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rat (Rattus), Dog (Canine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Alexa Fluor is a registered trademark of Molecular Probes, Inc., Eugene, OR. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

Product Details

	5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	SNRPN
Alternative Name:	SMN (SNRPN Products)
Background:	SMN (survival motor neuron) was discovered as a candidate gene, located in chromosome 5q13, for the fatal autosomal Spinal muscular atrophy (SMA) disorder. The SMN gene was missing or interrupted in a significant number of patients with SMA. The SMN protein is 294 amino acids and migrates with apparent molecular weight of 40 kDa. In addition to the cytoplasm, other studies localized SMN in dots of 0.1-1.0 μm within the nucleus. These novel nuclear structures were named gems and found associated to coiled bodies. It was also found that SMN interacts with the RGG box of hnRNP U and fibrillarin. Therefore, the biochemical function of SMN may be in the regulation of mRNA metabolism. Synonyms: Survival Motor Neuron
Molecular Weight:	40 kDa

Application Details

Comment:	Related Products: ABIN968587, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 μg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

Briese, Richter, Sattelle, Ulfig: "SMN, the product of the spinal muscular atrophy-determining gene, is expressed widely but selectively in the developing human forebrain." in: **The Journal of comparative neurology**, Vol. 497, Issue 5, pp. 808-16, (2006) (PubMed).

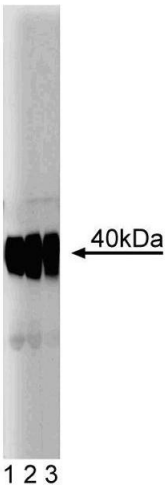
Côté, Boisvert, Boulanger, Bedford, Richard: "Sam68 RNA binding protein is an in vivo substrate for protein arginine N-methyltransferase 1." in: **Molecular biology of the cell**, Vol. 14, Issue 1, pp. 274-87, (2003) (PubMed).

Wang, Reddy, Shen: "Higher order arrangement of the eukaryotic nuclear bodies." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 99, Issue 21, pp. 13583-8, (2002) (PubMed).

Claus, Doring, Gringel, Muller-Ostermeyer, Fuhlrott, Kraft, Grothe: "Differential intranuclear localization of fibroblast growth factor-2 isoforms and specific interaction with the survival of motoneuron protein." in: **The Journal of biological chemistry**, Vol. 278, Issue 1, pp. 479-85, (2002) (PubMed).

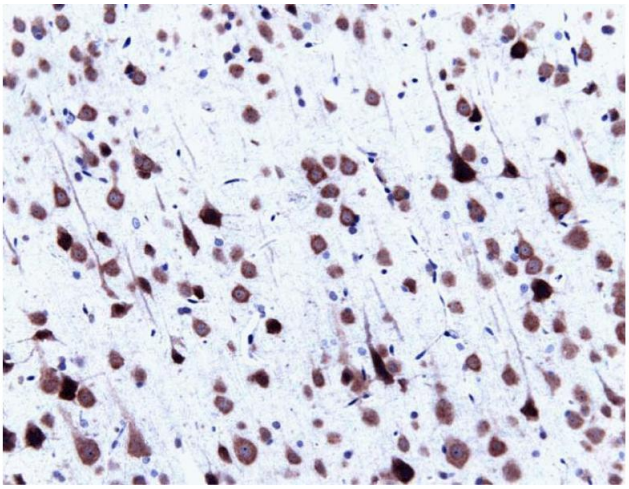
Cifuentes-Diaz, Frugier, Tiziano, Lacène, Roblot, Joshi, Moreau, Melki: "Deletion of murine SMN exon 7 directed to skeletal muscle leads to severe muscular dystrophy." in: **The Journal of cell biology**, Vol. 152, Issue 5, pp. 1107-14, (2001) (PubMed).

Images



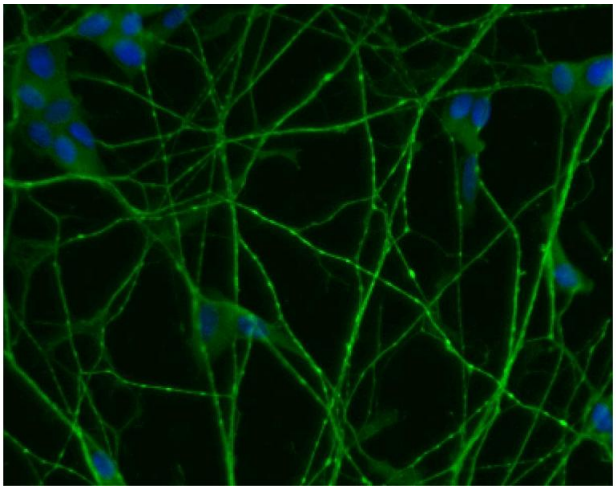
Western Blotting

Image 1. Western blot analysis of SMN on a HepG2 cell lysate (Human hepatocellular carcinoma, ATCC HB-8065) (left). Lane 1: 1:5000, lane 2: 1:10,000, lane 3: 1:20,000 dilution of the mouse anti-SMN antibody.



Immunohistochemistry (Paraffin-embedded Sections)

Image 2. Immunohistochemical staining of pyrimidal cells in a rat cortex, formalin-fixed paraffin-embedded tissue section, with citrate pre-treatment (magnification, 20X) (center).



Immunofluorescence

Image 3. Immunofluorescent staining of differentiated SH-SY5Y cells (right). Cells were seeded in a 96 well, collagen coated imaging plate at ~ 5,000 cells per well. Cells were incubated with 50 M ATRA for 5 days, followed by 50 ng/ml BDNF for 5 days. Differentiated cells were fixed and stained using the Triton X100 fix/perm protocol (see Recommended Assay Procedure, Bioimaging protocol link) and the anti-SMN antibody. The second step reagent was Alexa Fluor® 488 goat anti mouse Ig (Invitrogen)(pseudo colored green). Cell nuclei were counter stained with Hoechst 33342 (pseudo colored blue). The image was taken using a 20x objective and merged using the BD AttoVison ™ software This antibody also stained undifferentiated SH-SY5Y, SK-N-SH, C6, U87 and U373 cells using both the Triton X100 and methanol fix/perm protocols (see Recommended Assay Procedure, Bioimaging protocol link).