Datasheet for ABIN3043933

anti-SMN1 antibody (N-Term)

4 Images

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Overview

Quantity:	100 µg
Target:	SMN1
Binding Specificity:	AA 22-52, N-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SMN1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), Flow Cytometry (FACS)

Product Details

Purpose:	Anti-SMN1/2 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of human SMN1/2, identical to the related mouse and rat sequences.
Sequence:	RRGTGQSDDS DIWDDTALIK AYDKAVASFK H
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-SMN1/2 Antibody Picoband® (ABIN3043933). Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are

Product Details

	designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	SMN1
Alternative Name:	SMN1 (SMN1 Products)
Background:	Synonyms: Survival motor neuron protein,Component of gems 1,Gemin-1,SMN1,SMN, SMNT,SMN2,SMNC, Tissue Specificity: Expressed in a wide variety of tissues. Expressed at high levels in brain, kidney and liver, moderate levels in skeletal and cardiac muscle, and low levels in fibroblasts and lymphocytes. Also seen at high levels in spinal cord. Present in osteoclasts and mononuclear cells (at protein level). . Background: This gene is part of a 500 kb inverted duplication on chromosome 5q13. This duplicated region contains at least four genes and repetitive elements which make it prone to rearrangements and deletions. The repetitiveness and complexity of the sequence have also caused difficulty in determining the organization of this genomic region. The telomeric and centromeric copies of this gene are nearly identical and encode the same protein. However, mutations in this gene, the telomeric copy, are associated with spinal muscular atrophy, mutations in the centromeric copy do not lead to disease. The centromeric copy may be a modifier of disease caused by mutation in the telomeric copy. The critical sequence difference between the two genes is a single nucleotide in exon 7, which is thought to be an exon splice enhancer. Note that the nine exons of both the telomeric and centromeric copies are designated historically as exon 1, 2a, 2b, and 3-8. It is thought that gene conversion events may involve the two genes, leading to varying copy numbers of each gene. The protein encoded by this gene localizes to both the cytoplasm and the nucleus. Within the nucleus, the protein localizes to subnuclear bodies called gems which are found near coiled bodies containing high concentrations of small ribonucleoproteins (snRNPs). This protein forms heteromeric complexes with proteins such as SIP1 and GEMIN4, and also interacts with several proteins known to be involved in the biogenesis of snRNPs, such as hnRNP U protein and the small nucleolar RNA binding protein. Multiple transcript variants encoding distinct isoforms have been described. Sequence Similarities: Belongs to the SMN family.
Molecular Weight:	32 kDa

Target Details

Gene ID:	6606
UniProt:	Q16637
Pathways:	Ribonucleoprotein Complex Subunit Organization

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2 µg/mL, Human Flow Cytometry (Fixed), 1-3 µg/1x10^6 cells, Human 1. Blauw, H. M., Barnes, C. P., van Vught, P. W. J., van Rheenen, W., Verheul, M., Cuppen, E., Veldink, J. H., van den Berg, L. H. SMN1 gene duplications are associated with sporadic ALS. Neurology 78: 776-780, 2012. 2. Boda, B., Mas, C., Giudicelli, C., Nepote, V., Guimiot, F., Levacher, B., Zvara, A., Santha, M., LeGall, I., Simonneau, M. Survival motor neuron SMN1 and SMN2 gene promoters: identical sequences and differential expression in neurons and non-neuronal cells. Europ. J. Hum. Genet. 12: 729-737, 2004.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

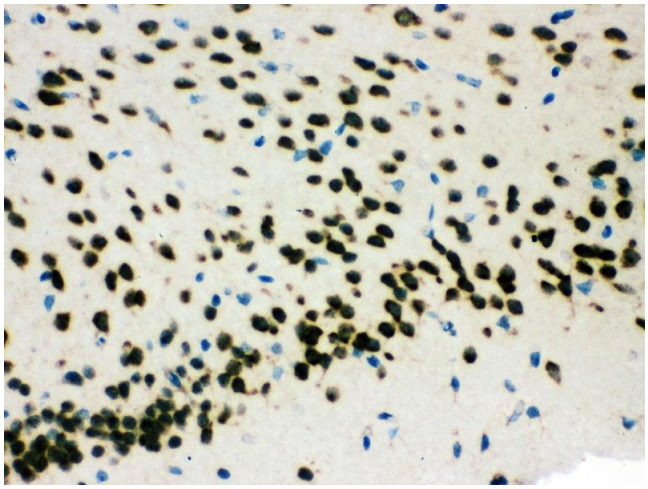
Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg 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.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw

Handling

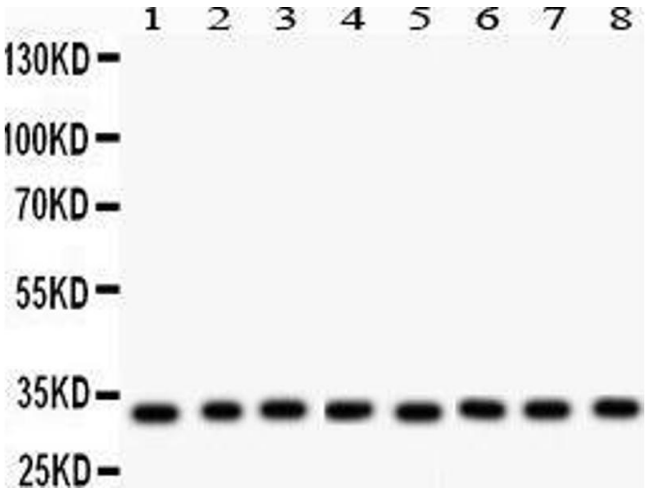
cycles.

Images



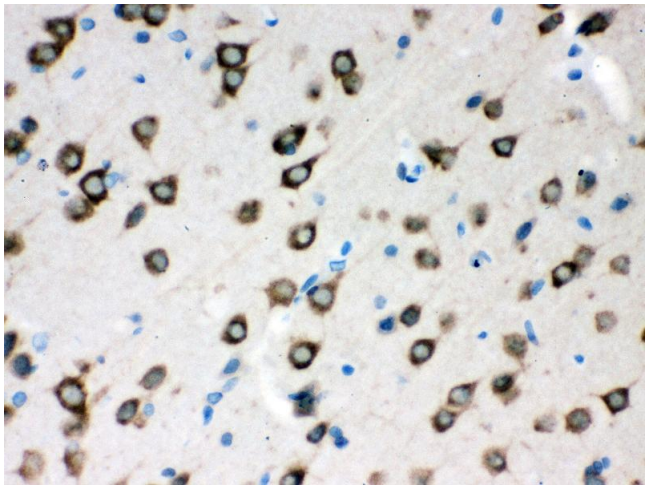
Immunohistochemistry

Image 1. Anti- SMN1/2 Picoband antibody,IHC(P) IHC(P): Mouse Brain Tissue



Western Blotting

Image 2. Anti- SMN1/2 Picoband antibody, Western blotting All lanes: Anti SMN1/2 at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Lane 3: Rat Liver Tissue Lysate at 50ug Lane 4: Mouse Liver Tissue Lysate at 50ug Lane 5: 293T Whole Cell Lysate at 40ug Lane 6: SMMC Whole Cell Lysate at 40ug Lane 7: HEPG2 Whole Cell Lysate at 40ug Lane 8: HELA Whole Cell Lysate at 40ug Predicted bind size: 32KD Observed bind size: 32KD



Immunohistochemistry

Image 3. Anti- SMN1/2 Picoband antibody,IHC(P) IHC(P): Rat Brain Tissue

Please check the product details page for more images. Overall 4 images are available for ABIN3043933.