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anti-SMN1 antibody

2 Images



Publication



Go to Product page

Overview	
Quantity:	100 μL
Target:	SMN1
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SMN1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunocytochemistry (ICC)
Product Details	
Immunogen:	Recombinant protein encompassing a sequence within the center region of human SMN1. The exact sequence is proprietary.
Isotype:	IgG
Cross-Reactivity:	Human
Characteristics:	Rabbit Polyclonal antibody to SMN1 (survival of motor neuron 1, telomeric) SMN1 antibody
Purification:	Purified by antigen-affinity chromatography.
Target Details	
Target:	SMN1
Alternative Name:	survival of motor neuron 1, telomeric (SMN1 Products)

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. Two transcript variants encoding distinct isoforms have been described.

Molecular Weight:	32 kDa
Gene ID:	6606
UniProt:	Q16637
Pathways:	Ribonucleoprotein Complex Subunit Organization
Application Details	
Application Notes:	WB: 1:500-1:3000. ICC/IF: 1:100-1:1000. Optimal dilutions/concentrations should be determined by the researcher. Not tested in other applications.
Comment:	Positive Control: 293T , A431 , HeLa , HepG2
Restrictions:	For Research Use only
Handling	
Format:	Liquid

Handling

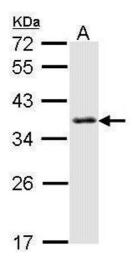
Concentration:	1 mg/mL
Buffer:	1XPBS (pH 7), 40 % Glycerol, 0.01 % Thimerosal
Preservative:	Thimerosal (Merthiolate)
Precaution of Use:	This product contains Thimerosal (Merthiolate): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Publications

Product cited in:

Wu, Yen, Kou, Wu: "Luteolin and Apigenin Attenuate 4-Hydroxy-2-Nonenal-Mediated Cell Death through Modulation of UPR, Nrf2-ARE and MAPK Pathways in PC12 Cells." in: **PLoS ONE**, Vol. 10, Issue 6, pp. e0130599, (2016) (PubMed).

Validation report #104426 for Immunohistochemistry (IHC)



Western Blotting

Image 1. WB Image Sample (30 ug of whole cell lysate) A: Hela 12% SDS PAGE antibody diluted at 1:1000



Immunofluorescence

Image 2. ICC/IF Image Immunofluorescence analysis of methanol-fixed HeLa, using SMN1, antibody at 1:200 dilution.