SMN1 (human), (recombinant) (His-tag)

Recombinant human SMN1 (His-tag) that supports snRNP assembly and RNA metabolism.

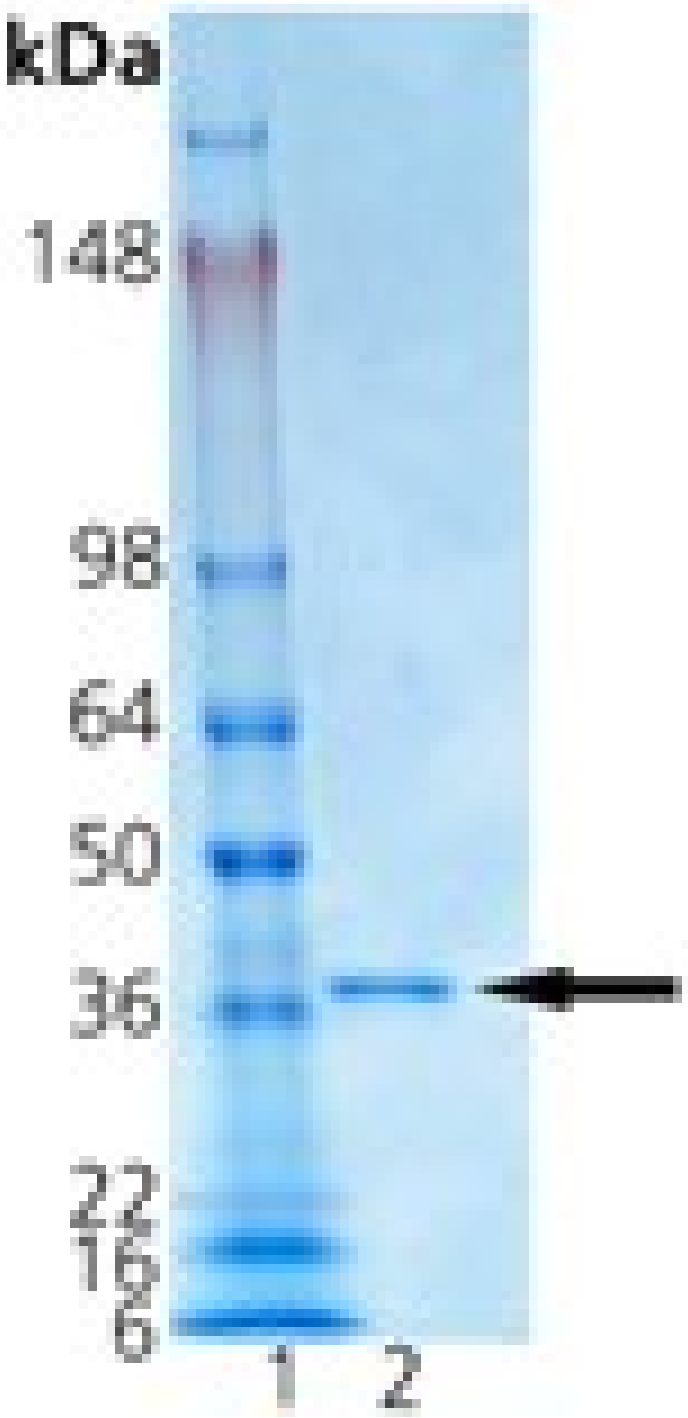
Survival Motor Neuron (SMN) is a ~38 kDa protein produced chiefly by the SMN1 gene, located on the telomeric portion of chromosome 5q. A nearly identical centromeric copy of the gene (SMN2) also produces a small amount of full-length SMN protein, but due to a translationally silent C(R)T transition that results in alternative splicing of the pre-mRNA, most of the resulting SMN is truncated, causing reduced protein stability and lower overall SMN levels. Deletion or mutation of the SMN1 gene results in a reduced level of full-length SMN protein and manifests as a range of neuromuscular phenotypes in humans as the disease spinal muscular atrophy (SMA). SMA is characterized by muscle weakness and atrophy, functional disability and is the most common lethal genetic disease of infants and toddlers. Approximately one in 35 adults is a carrier of the SMN1 mutation. The incidence of SMA is 1 in 6,000 to 1 in 10,000 live births. SMN protein is present in the cell cytoplasm, and also in the nucleus where it is concentrated in “gem” structures associated with Cajal bodies. SMN protein is a constituent of Gemin-containing complexes, and is thought to participate in many aspects of RNA metabolism. SMN complexes have been shown to mediate the assembly of uridine-rich small nuclear ribonucleoproteins (snRNPs), which in turn act as critical components of spliceosomes.

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ADI-NBP-201-050	50µg

Manuals, SDS & CofA View Online »



SDS-PAGE analysis: Lane 1: MWM, Lane 2: 1µg of Recombinant SMN1 Protein.



Western Blot Analysis: Lane 1: MWM, Lane 2: 100 ng of Human SMN1 Protein.

Handling & Storage

Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name	Survival Motor Neuron
Formulation	Liquid. In 20 mM Tris HCl pH 7.4, 300 mM potassium chloride and 10% glycerol.
MW	40kDa
Purity	≥90% (SDS-PAGE)
Purity Detail	Purified by multi-step chromatography.
Source	Produced in *E. coli*. The N-terminus is fused with a His tag.
Technical Info / Product Notes	Protected by US Patent no. US. 6,080,577.
UniProt ID	Q16637

Last modified: October 9, 2025

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