Human SMN1 Protein, His Tag

Catalog # SM1-H5145

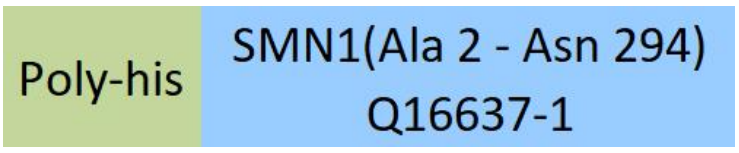
Synonym

Survival Motor Neuron 1,SMN1

Source

Human SMN1, His Tag(SM1-H5145) is expressed from E. coli cells. It contains AA Ala 2 - Asn 294 (Accession # Q16637-1).
Predicted N-terminus: Met

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 33.7 kDa. The protein migrates as 36-40 kDa and 69 kDa under reducing (R) condition (SDS-PAGE).

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.5 M Arginine, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

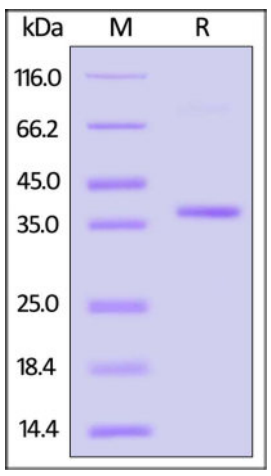
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

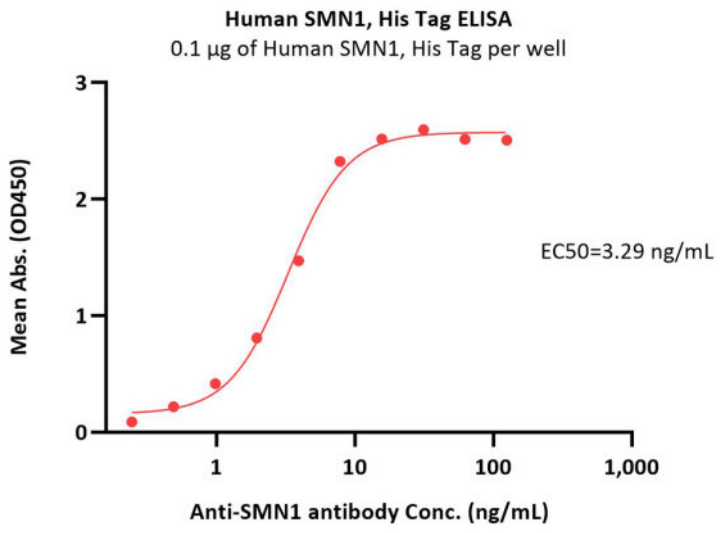
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human SMN1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Human SMN1, His Tag (Cat. No. SM1-H5145) at 1 μg/mL (100 μL/well) can bind Anti-SMN1 antibody with a linear range of 0.2-8 ng/mL (QC tested).

Background

SMN1 is produced chiefly by the SMN1 gene, located on the telomeric portion of chromosome 5q. SMN1 protein is one of a group of proteins called the SMN complex, which is important for the maintenance of specialized nerve cells called motor neurons. In cells, the SMN complex plays an important role in processing mRNA. The SMN complex helps to assemble the cellular machinery needed to process pre-mRNA. The SMN complex is also important for the development of specialized outgrowths from nerve cells called dendrites and axons. 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).