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Datasheet for ABIN3134732 SMN1 Protein (AA 1-288) (His tag)

Image



Overview

Quantity:	1 mg	
Target:	SMN1	
Protein Characteristics:	AA 1-288	
Origin:	Mouse	
Source:	Insect Cells	
Protein Type:	Recombinant	
Purification tag / Conjugate:	This SMN1 protein is labelled with His tag.	
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS), Crystallization (Crys)	

Product Details

Sequence:	MAMGSGGAGS EQEDTVLFRR GTGQSDDSDI WDDTALIKAY DKAVASFKHA LKNGDICETP	
	DKPKGTARRK PAKKNKSQKK NATTPLKQWK VGDKCSAVWS EDGCIYPATI TSIDFKRETC	
	VVVYTGYGNR EEQNLSDLLS PTCEVANSTE QNTQENESQV STDDSEHSSR SLRSKAHSKS	
	KAAPWTSFLP PPPPMPGSGL GPGKPGLKFN GPPPPPPLPP PPFLPCWMPP FPSGPPIIPP	
	PPPISPDCLD DTDALGSMLI SWYMSGYHTG YYMGFRQNKK EGKCSHTN	
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a	
	special request, please contact us.	
Characteristics:	Made in Germany - from design to production - by highly experienced protein experts.	
	 Mouse Smn1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. 	
	State-of-the-art algorithm used for plasmid design (Gene synthesis).	
	This protein is a made to order protein and will be made for the first time for your order. Our	

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	experts in the lab will ensure that you receive a correctly folded protein.
	The big advantage of ordering our made-to-order proteins in comparison to ordering custom
	made proteins from other companies is that there is no financial obligation in case the protein
	cannot be expressed or purified.
	In the unlikely event that the protein cannot be expressed or purified we do not charge anything
	(other companies might charge you for any performed steps in the expression process for
	custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression
	experiments or purification optimization).
	When you order this made-to-order protein you will only pay upon receival of the correctly
	folded protein. With no financial risk on your end you can rest assured that our experienced
	protein experts will do everything to make sure that you receive the protein you ordered.
	The concentration of our recombinant proteins is measured using the absorbance at 280nm.
	The protein's absorbance will be measured in several dilutions and is measured against its
	specific reference buffer.
	The concentration of the protein is calculated using its specific absorption coefficient. We use
	the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells:
	 In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
	 Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.

Target Details

Target:	SMN1	
Alternative Name:	Smn1 (SMN1 Products)	
Background:	The SMN complex plays a catalyst role in the assembly of small nuclear ribonucleoproteins	
	(snRNPs), the building blocks of the spliceosome. Thereby, plays an important role in the	

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	splicing of cellular pre-mRNAs. Most spliceosomal snRNPs contain a common set of Sm		
	proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a		
	heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP. In the		
	cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an		
	inactive 6S pICIn-Sm complex by the chaperone CLNS1A that controls the assembly of the core		
	snRNP. Dissociation by the SMN complex of CLNS1A from the trapped Sm proteins and their		
	transfer to an SMN-Sm complex triggers the assembly of core snRNPs and their transport to		
	the nucleus. Ensures the correct splicing of U12 intron-containing genes that may be important		
	for normal motor and proprioceptive neurons development. Also required for resolving RNA-		
	DNA hybrids created by RNA polymerase II, that form R-loop in transcription terminal regions,		
	an important step in proper transcription termination. May also play a role in the metabolism of		
	small nucleolar ribonucleoprotein (snoRNPs). {ECO:0000250 UniProtKB:Q16637,		
	ECO:0000269 PubMed:23063131}.		
Molecular Weight:	32.2 kDa Including tag.		
UniProt:	P97801		
Pathways:	Ribonucleoprotein Complex Subunit Organization		

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies	
	as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee	
	though.	
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the	
	recombinant protein with the default tag will be insoluble our protein lab may suggest a higher	
	molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible	
	options with you in detail to assure that you receive your protein of interest.	
Restrictions:	For Research Use only	

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

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 Storage Comment:
 Store at -80°C.

 Expiry Date:
 Unlimited (if stored properly)

Images

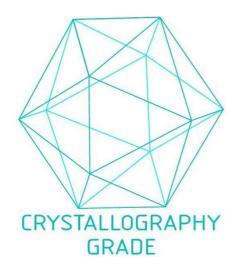


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process

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