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# Datasheet for ABIN3120726 SUMO2 Protein (AA 1-93) (His tag)

### Overview

Overview	
Quantity:	1 mg
Target:	SUM02
Protein Characteristics:	AA 1-93
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SUMO2 protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS), Crystallization (Crys)
Product Details	
Sequence:	MADEKPKEGV KTENNDHINL KVAGQDGSVV QFKIKRHTPL SKLMKAYCER QGLSMRQIRF
	RFDGQPINET DTPAQLEMED EDTIDVFQQQ TGG
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a
	special request, please contact us.
Characteristics:	<ul> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> <li>Mouse Sumo2 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>
	This protein is a made to order protein and will be made for the first time for your order. Our
	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 bacterial culture:

- 1. 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

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Endotoxin Level:

Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade:

Crystallography grade

#### Target Details

Target:	SUM02
Alternative Name:	Sumo2 (SUMO2 Products)
Background:	Ubiquitin-like protein that can be covalently attached to proteins as a monomer or as a lysine-
	linked polymer. Covalent attachment via an isopeptide bond to its substrates requires prior
	activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I, and can be
	promoted by an E3 ligase such as PIAS1-4, RANBP2 or CBX4. This post-translational
	modification on lysine residues of proteins plays a crucial role in a number of cellular processes

## **Target Details**

rarget Details	
	such as nuclear transport, DNA replication and repair, mitosis and signal transduction.
	Polymeric SUMO2 chains are also susceptible to polyubiquitination which functions as a signal
	for proteasomal degradation of modified proteins. Plays a role in the regulation of sumoylation
	status of SETX (By similarity). {ECO:0000250 UniProtKB:P61956}.
Molecular Weight:	11.6 kDa Including tag.
UniProt:	P61957
Pathways:	Methionine Biosynthetic Process
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
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)