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# SIRT5 Protein (AA 37-310) (His tag)





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Quantity:	1 mg
Target:	SIRT5
Protein Characteristics:	AA 37-310
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SIRT5 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### **Product Details**

Sequence:	SSSMADFRKF FAKAKHIVII SGAGVSAESG VPTFRGAGGY WRKWQAQDLA TPLAFAHNPS

RVWEFYHYRR EVMGSKEPNA GHRAIAECET RLGKQGRRVV VITQNIDELH RKAGTKNLLE IHGSLFKTRC TSCGVVAENY KSPICPALSG KGAPEPGTQD ASIPVEKLPR CEEAGCGGLL

RPHVVWFGEN LDPAILEEVD RELAHCDLCL VVGTSSVVYP AAMFAPQVAA RGVPVAEFNT

ETTPATNRFR FHFQGPCGTT LPEALACHEN ETVS

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.

• Human SIRT5 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

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:

- 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.
- 2. 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.

Grade:

Crystallography grade

#### Target Details

Target: SIRT5

Alternative Name: SIRT5 (SIRT5 Products)

Background: NAD-dependent lysine demalonylase, desuccinylase and deglutarylase that specifically removes malonyl, succinyl and glutaryl groups on target proteins (PubMed:21908771,

ar Weight:	30.8 kDa Including tag
	ECO:0000269 PubMed:24140062, ECO:0000269 PubMed:24703693}.
	ECO:0000269 PubMed:21908771, ECO:0000269 PubMed:22076378,
	such as UOX. {ECO:0000250 UniProtKB:Q8K2C6, ECO:0000269 PubMed:18680753,
	relevant in vivo. Can deacetylate cytochrome c (CYCS) and a number of other proteins in vitro
	NAD-dependent protein deacetylase activity, however this activity may not be physiologically
	ketogenesis through the desuccinylation and activation of HMGCS2 (By similarity). Has weak
	desuccinylation, leading to reduced reactive oxygen species (PubMed:24140062). Modulates
	during fasting (PubMed:22076378, PubMed:24703693). Activates SOD1 by mediating its
	deglutarylation of CPS1, thereby increasing CPS1 activity in response to elevated NAD levels
	blood ammonia levels during prolonged fasting: acts by mediating desuccinylation and
	PubMed:22076378, PubMed:24703693). Activates CPS1 and contributes to the regulation of

Molecular Weight:	30.8 kDa Including tag.
UniProt:	Q9NXA8
Pathways:	SARS-CoV-2 Protein Interactome

### **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:	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

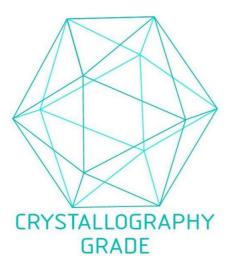
## Handling

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)

**Images** 



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