

Datasheet for ABIN3095640

SP1 Protein (AA 2-785) (His tag)**1** Image[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	SP1
Protein Characteristics:	AA 2-785
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SP1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	SDQDHSMDEM TAVVKIEKGV GGNNGGNGNG GGAFSQARSS STGSSSSTGG GGQESQPSP ALLAATCSRI ESPNENSNNNS QGPSQSGGTG ELDLTATQLS QGANGWQIIS SSSGATPTSK EQSGSSTNGS NGSESSKNRT VSGGQYVVAAPNLQNNQVL TGLPGVMPNI QYQVIPQFQT VDGQQLQFAA TGAQVQQDGS GQIQIIPGAN QQIITNRGSG GNIIAAMPNL LQQAVPLQGL ANNVLSGQTQ YVTNVPVALN GNITLLPVNS VSAATLTPSS QAVTISSSGS QESGSQPVTS GTTISSASLV SSQASSSSFF TNANSYSTTT TTSNMGIMNF TTSNGSGTNS QGQTPQRVSG LQGSDALNIQ QNQTSGGSLQ AGQKKEGEQN QQTQQQILI QPQLVQGGQA LQALQAAPLS GQTFTTQAIS QETLQNLQLQ AVPNSGPIII RTPTVGPNGQ VSWQTLQLQN LQVQNPQAQT ITLAPMQGVS LGQTSSSNTT LTPIASAASI PAGTVTVNAA QLSSMPGLQT INLSALGTSG IQVHPIQGLP LAIANAPGDH GAQLGLHGAG GDGIHDDTAG GEEGENSPDA QPQAGRRTTR EACTCPYCKD SEGRGSGDPG KKKQHICHIQ GCGKVYKTS HLRAHLRWHT GERPFMCTWS YCGKRFRSD ELQRHKRTHT GEKKFACPEC PKRFMRSDHL SKHIKTHQNK KGGPGVALSV
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GTLPDLSGAG SEGSGTATPS ALITTNMVAM EAICPEGIAR LANSGINVMQ VADLQSINIS GNGF

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 SP1 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 receipt 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.

Product Details

Grade: Crystallography grade

Target Details

Target: SP1

Alternative Name: SP1 ([SP1 Products](#))

Background: Transcription factor that can activate or repress transcription in response to physiological and pathological stimuli. Binds with high affinity to GC-rich motifs and regulates the expression of a large number of genes involved in a variety of processes such as cell growth, apoptosis, differentiation and immune responses. Highly regulated by post-translational modifications (phosphorylations, sumoylation, proteolytic cleavage, glycosylation and acetylation). Binds also the PDGFR-alpha G-box promoter. May have a role in modulating the cellular response to DNA damage. Implicated in chromatin remodeling. Plays a role in the recruitment of SMARCA4/BRG1 on the c-FOS promoter. Plays an essential role in the regulation of FE65 gene expression. In complex with ATF7IP, maintains telomerase activity in cancer cells by inducing TERT and TERC gene expression. Isoform 3 is a stronger activator of transcription than isoform 1. Positively regulates the transcription of the core clock component ARNTL/BMAL1. {ECO:0000269|PubMed:10391891, ECO:0000269|PubMed:11371615, ECO:0000269|PubMed:11904305, ECO:0000269|PubMed:14593115, ECO:0000269|PubMed:16377629, ECO:0000269|PubMed:16478997, ECO:0000269|PubMed:16943418, ECO:0000269|PubMed:17049555, ECO:0000269|PubMed:18171990, ECO:0000269|PubMed:18199680, ECO:0000269|PubMed:18239466, ECO:0000269|PubMed:18513490, ECO:0000269|PubMed:18619531, ECO:0000269|PubMed:19193796, ECO:0000269|PubMed:20091743, ECO:0000269|PubMed:21798247}.

Molecular Weight: 81.5 kDa Including tag.

UniProt: [P08047](#)

Pathways: [Regulation of Lipid Metabolism by PPARalpha](#), [Myometrial Relaxation and Contraction](#)

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 guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be

Application Details

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