

Datasheet for ABIN3120972

**SMAD1 Protein (AA 1-465) (His tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	SMAD1
Protein Characteristics:	AA 1-465
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMAD1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## Product Details

Sequence: MNVTSLSFST SPAVKRLLGW KQGDEEEKWA EKAVDALVKK LKKKKGAMEE LEKALSCPGQ  
PSNCVTIPRS LDGRLQVSHR KGLPHVIYCR VWRWPDQLQSH HELKPLECCE PFGSKQKEV  
CINPYHYKRV ESPVLPPVLV PRHSEYNPQH SLLAQFRNLG QNEPHMPLNA TFPDSFQQPN  
SHPFPHSPNS SYPNSPPGGSS STYPHSPTSS DPGSPFQMPA DTPPPAYLPP EDPMAQDGSQ  
PMDTNMMAPP LPAEISRGDV QAVAYEEPKH WCSIVYYELN NRVGEAFHAS STSVLVDGFT  
DPSNNKNRFC LGLLSNVNRN STIENTRRHI GKGVHLYYVG GEVYAECLSD SSIFVQSRNC  
NYHHGFHPTT VCKIPSGCSL KIFNNQEFAQ LLAQSVNHGF ETVYELTKMC TIRMSFVKGW  
GAEYHRQDVT STPCWIEIHL HGPLQWLDKV LTQMGSPHNP ISSVS

**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 Smad1 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.

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### 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.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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### Sterility:

0.22 µm filtered

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### Endotoxin Level:

Protein is endotoxin free.

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### Grade:

Crystallography grade

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## Target Details

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### Target:

SMAD1

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### Alternative Name:

Smad1 ([SMAD1 Products](#))

## Target Details

Background:	Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD1 is a receptor-regulated SMAD (R-SMAD) (By similarity). May play a role in the initiation and maintenance of spermatogenesis. SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1 (By similarity). May act synergistically with SMAD4 and YY1 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (PubMed:15329343). {ECO:0000250 UniProtKB:Q15797, ECO:0000269 PubMed:15329343}.
Molecular Weight:	53.1 kDa Including tag.
UniProt:	<a href="#">P70340</a>
Pathways:	<a href="#">Stem Cell Maintenance</a> , <a href="#">Regulation of Muscle Cell Differentiation</a> , <a href="#">Skeletal Muscle Fiber Development</a>

## 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:	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)



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