

Datasheet for ABIN7546131

SMAD1 Protein (AA 1-465) (His tag)



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Overview

Quantity:	1 mg
Target:	SMAD1
Protein Characteristics:	AA 1-465
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMAD1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SMAD1 Protein expressed in mammalian cells.
Sequence:	<p>MNVTSLFSFT SPAVKRLLGW KQGDEEEKWA EKAVDALVKK LKKKKGAMEE LEKALSCPGQ</p> <p>PSNCVTIPRS LDGRLQVSHR KGLPHVIYCR VWRWPDQLQSH HELKPLECCE FPFQSKQKEV</p> <p>CINPYHYKRV ESPVLPPVLV PRHSEYNPQH SLLAQFRNLG QNEPHMPLNA TFPDSFQQPN</p> <p>SHPFPHPSPNS SYPNSPGSSS STYPHSPTSS DPGSPFQMPA DTPPPAYLPP EDPMTQDGSQ</p> <p>PMDTNMMAPP LPSEINRGDV QAVAYECPKH WCSIVYYELN NRVGEAFHAS STSVLVDGFT</p> <p>DPSNNKNRFC LGLLSNVNRN STIENTRRHI GKGVHLYYVG GEVYAECLSD SSIFVQSRNC</p> <p>NYHHGFHPTT VCKIPSGCSL KIFNNQEFAQ LLAQSVNHGF ETVYELTKMC TIRMSFVKGW</p> <p>GAEYHRQDVT STPCWIEIHL HGPLQWLDKV LTQMGSPHNP ISSVS Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</p>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

Product Details

isoform, please contact us regarding an individual offer.

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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 try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

Grade:

custom-made

Target Details

Target:

SMAD1

Alternative Name:

SMAD1 ([SMAD1 Products](#))

Background:

Mothers against decapentaplegic homolog 1 (MAD homolog 1) (Mothers against DPP homolog 1) (JV4-1) (Mad-related protein 1) (SMAD family member 1) (SMAD 1) (Smad1) (hSMAD1) (Transforming growth factor-beta-signaling protein 1) (BSP-1),FUNCTION: Transcriptional modulator that plays a role in various cellular processes, including embryonic development, cell differentiation, and tissue homeostasis (PubMed:9335504). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRI) and associates with SMAD4 to form an heteromeric complex which translocates into the nucleus acting as transcription factor (PubMed:33667543). In turn, the hetero-trimeric complex recognizes cis-regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network (PubMed:33667543). SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1. Positively regulates BMP4-induced expression of odontogenic development regulator MSX1 following IPO7-mediated

Target Details

nuclear import (By similarity). {ECO:0000250|UniProtKB:P70340, ECO:0000269|PubMed:12097147, ECO:0000269|PubMed:33667543, ECO:0000269|PubMed:9335504}.

Molecular Weight: 52.3 kDa

UniProt: [Q15797](#)

Pathways: [Stem Cell Maintenance](#), [Regulation of Muscle Cell Differentiation](#), [Skeletal Muscle Fiber Development](#)

Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition 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: 12 months