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Datasheet for ABIN1692097

**SMAD4 Protein (AA 1-552) (His tag)**

## Overview

Quantity:	50 µg
Target:	SMAD4
Protein Characteristics:	AA 1-552
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMAD4 protein is labelled with His tag.

## Product Details

Purpose:	Recombinant Human SMAD Family Member 4/SMAD4/DPC4 (C-6His)
Sequence:	MDNMSITNTP TSNDACLSIV HSLMCHRQGG ESETFAKRAI ESLVKKLKEK KDELDSLITA ITTNGAHP SK CVTIQRTLDG RLQVAGRKG F PHVIYARLWR WPD LHKNELK HVKYCQYAFD LKCD SVCVNP YHYERVVSPG IDLSGLTLQS NAPSSMMVKD EYVHDFEGQP SLSTEGHSIQ TIQHPPSNRA STETYSTPAL LAPSESNATS TANFPNIPVA STSQPASILG GSHSEGLLQI ASGPQPGQQQ NGFTGQPATY HHNSTTTWTG SRTAPYTPNL PHHQNGHLQH HPPMPHPHGH YWPVHNELAF QPPISNHPAP EYWCSIAFFE MDVQVGETFK VPSSCPIVTV DGYVDPSSGGD RFCLGQLSNV HRTEAIERAR LHIGKGVQLE CKGEGDVWVR CLSDHAVFVQ SYYL DREAGR APGDAVHKIY PSAYIKVFDL RQCHRQMQQQ AATAQAAAAA QAAAVAGNIP GPGSVGGIAP AISLSAAAGI GVDDLRLRLCI LRMSFVKGWG PDYPRQSIKE TPCWIEIHLH RALQLLDEVL HTMPIADPQP LDLEHHHHHH
Characteristics:	Recombinant Human SMAD Family Member 4/SMAD4 is produced with our E. coli expression system. The target protein is expressed with sequence (Met1-Asp552) of Human SMAD4 fused

## Product Details

with a 6His tag at the C-terminus.

Purity: > 95 % as determined by reducing SDS-PAGE.

Sterility: 0.2 µm filtered

Endotoxin Level: Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test

## Target Details

Target: SMAD4

Alternative Name: SMAD4 ([SMAD4 Products](#))

Sub Type: Fusionprotein

Background: SMAD Family Member 4 (SMAD4) is a cytoplasmic protein that belongs to the Dwarfin/SMAD family. SMAD4 contains one MH1 (MAD homology 1) domain and one MH2 (MAD homology 2) domain. It is the component of the heterotrimeric SMAD2/SMAD3-SMAD4 complex that forms in the nucleus and is required for the TGF-mediated signaling. SMAD4 promotes binding of the SMAD2/SMAD4/FAST-1 complex to DNA and provides an activation function required for SMAD1 or SMAD2 to stimulate transcription. SMAD4 may act as a tumor suppressor. It positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator. Mutations or deletions in SMAD4 have been shown to result in pancreatic cancer, juvenile polyposis syndrome, and hereditary hemorrhagic telangiectasia syndrome.

Alternative Names: Mothers Against Decapentaplegic Homolog 4, MAD Homolog 4, Mothers Against DPP Homolog 4, Deletion Target in Pancreatic Carcinoma 4, SMAD Family Member 4, SMAD 4, Smad4, hSMAD4, SMAD4, DPC4, MADH4

Molecular Weight: 61.5 kDa

UniProt: [Q13485](#)

Pathways: [Cell Division Cycle](#), [Chromatin Binding](#), [Autophagy](#)

## Application Details

Restrictions: For Research Use only

## Handling

Format: Lyophilized

## Handling

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Reconstitution:	It is not recommended to reconstitute to a concentration less than 100 µg/mL. Dissolve the lyophilized protein in ddH <sub>2</sub> O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Buffer:	Lyophilized from a 0.2 µm filtered solution of 20 mM TrisHCl, pH 8.0.
Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Storage:	4 °C/-20 °C/-80 °C
Storage Comment:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Expiry Date:	3 months