

Product datasheet for PH300299

SMAD1 (NM_001003688) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	SMAD1 MS Standard C13 and N15-labeled recombinant protein (NP_001003688)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC200299
Predicted MW:	52.3 kDa
Protein Sequence:	>RC200299 protein sequence Red=Cloning site Green=Tags(s)

MNVTSLFSFTSPAVKRLLGWKQGDDEEEKWAEKAVDALVKKLLKKKKGAMEELEKALSCPGQPSNCVTIPRS
LDGRLQVSHRKGLPHVIYCRVWRPDLQSHHELKPLECCEFFPGSKQKEVCINPYHYKRVESVLPVPPVLV
PRHSEYNPQHSLLAQFRNLGQNEPHMPLNATFPDSFQQPNSHPPHSPNSSYPNSPGSSSSTYPHSPTSS
DPGSPFQMPADTPPPAYLPPEPMTQDGSQPMDTNMMAPLPSEINRGDVQAVAYEEPKHWCISIVYYELN
NRVGEAFHASSTSVLVDGFTDPSNKNRFCLGLLSNVNRNSTIENTRRHIGKGVHLYYVGGEVYAECLSD
SSIFVQSRNCNYHHGFHPTTVCKIPSGCSLKIFNNQEFQLLAQSVNHGFETVYELTKMCTIRMSFVKGW
GAEYHRQDVTSTPCWIEIHLHGPLQWLDKVLTQMGSPHNPISVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_001003688</u>
RefSeq Size:	2880
RefSeq ORF:	1395
Synonyms:	BSP-1; BSP1; JV4-1; JV41; MADH1; MADR1



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Locus ID: 4086

UniProt ID: [Q15797](#)

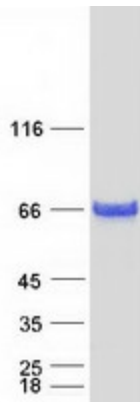
Cytogenetics: 4q31.21

Summary: The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq, Jul 2008]

Protein Families: Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - JAK/STAT signaling pathway, Stem cell relevant signaling - TGFb/BMP signaling pathway, Transcription Factors

Protein Pathways: TGF-beta signaling pathway

Product images:



Coomassie blue staining of purified SMAD1 protein (Cat# [TP300299]). The protein was produced from HEK293T cells transfected with SMAD1 cDNA clone (Cat# [RC200299]) using MegaTran 2.0 (Cat# [TT210002]).