



Human SMAD1 peptide (DAG-P1985)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	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]
Specificity	Ubiquitous. Highest expression seen in the heart and skeletal muscle.
Purity	70 - 90% by HPLC.
Conjugate	Unconjugated
Sequence Similarities	Belongs to the dwarfin/SMAD family. Contains 1 MH1 (MAD homology 1) domain. Contains 1 MH2 (MAD homology 2) domain.
Format	Liquid
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

GENE INFORMATION

Gene Name	SMAD1 SMAD family member 1 [Homo sapiens (human)]
Official Symbol	SMAD1
Synonyms	SMAD1; SMAD family member 1; BSP1; JV41; BSP-1; JV4-1; MADH1; MADR1; mothers against decapentaplegic homolog 1; MAD homolog 1; Mad-related protein 1; TGF-beta signaling protein 1; mothers against DPP homolog 1; SMAD, mothers against DPP homolog 1; MAD, mothers against decapentaplegic homolog 1; transforming growth factor-beta signaling protein 1; transforming growth factor-beta-signaling protein 1;
Entrez Gene ID	4086
mRNA Refseq	NM_001003688.1
Protein Refseq	NP_001003688.1
UniProt ID	Q15797
Chromosome Location	4q31
Pathway	ALK1 signaling events, organism-specific biosystem; ALK2 signaling events, organism-specific biosystem; Angiogenesis, organism-specific biosystem; BMP receptor signaling, organism-specific biosystem; BMP signalling and regulation, organism-specific biosystem; Delta-Notch Signaling Pathway, organism-specific biosystem; ErbB1 downstream signaling, organism-specific biosystem; Heart Development, organism-specific biosystem; Hippo signaling pathway, organism-specific biosystem; Hippo signaling pathw
Function	I-SMAD binding; RNA polymerase II core promoter sequence-specific DNA binding; co-SMAD binding; identical protein binding; metal ion binding; protein binding; protein kinase binding; receptor signaling protein activity; sequence-specific DNA binding trans