

Product datasheet for RC223918L2V

OriGene Technologies, Inc.

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SMAD1 (NM_005900) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type: Lentiviral Particles

Product Name: SMAD1 (NM_005900) Human Tagged ORF Clone Lentiviral Particle

Symbol: SMAD1

Synonyms: BSP-1; BSP1; JV4-1; JV41; MADH1; MADR1

Mammalian Cell

Selection:

None

Vector: pLenti-C-mGFP (PS100071)

Tag: mGFP

ACCN: NM_005900 **ORF Size:** 1395 bp

ORF Nucleotide

The ORF insert of this clone is exactly the same as(RC223918).

OTI Disclaimer:

Sequence:

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

RefSeg: NM 005900.2

 RefSeq Size:
 3056 bp

 RefSeq ORF:
 1398 bp

 Locus ID:
 4086

 UniProt ID:
 Q15797

 Cytogenetics:
 4q31.21

Domains: DWB, DWA, MH1



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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

MW: 52.1 kDa

Gene 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]