

## Product datasheet for RC200299L2

#### OriGene Technologies, Inc.

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# SMAD1 (NM\_001003688) Human Tagged Lenti ORF Clone

### **Product data:**

**Product Type:** Expression Plasmids

Product Name: SMAD1 (NM\_001003688) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: SMAD1

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

Mammalian Cell None

Selection:

**Vector:** pLenti-C-mGFP (PS100071)

**E. coli Selection:** Chloramphenicol (34 ug/mL)

**ORF Nucleotide** 

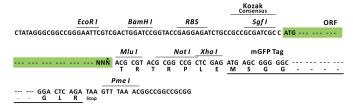
The ORF insert of this clone is exactly the same as(RC200299).

Sequence:

**Restriction Sites:** Sgfl-Mlul

Cloning Scheme:



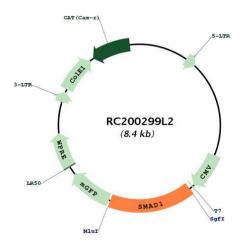


<sup>\*</sup> The last codon before the Stop codon of the ORF.





#### Plasmid Map:



**ACCN:** NM\_001003688

ORF Size: 1395 bp

**OTI Disclaimer:** 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.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:** 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

RefSeq: <u>NM 001003688.1</u>, <u>NP 001003688.1</u>

RefSeq Size: 2880 bp RefSeq ORF: 1398 bp



### SMAD1 (NM\_001003688) Human Tagged Lenti ORF Clone - RC200299L2

**Locus ID:** 4086

 UniProt ID:
 Q15797

 Cytogenetics:
 4q31.21

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: 52.3 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]