

Product datasheet for **MC227845**

Smad2 (NM_001252481) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smad2 (NM_001252481) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Smad2
Synonyms:	7120426M23Rik; Madh2; Madr2; mMad2; Smad-2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC227845 representing NM_001252481
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGTCCTACTTTGCCATTCACTCCGCCAGTGGTGAAGAGACTTCTGGGATGGAAAAAATCAGCCGGTG
 GGTCTGGAGGAGCAGGTGGTGGAGAGCAGAATGGACAGGAAGAAAAGTGGTGTGAAAAAGCAGTGAAAAAG
 TCTGGTAAAAAGCTAAAGAAAACAGGACGGTTAGATGAGCTTGAGAAAGCCATCACCCTCAGAATTGC
 AATACTAAATGTGTCACCATACCAAGCACTTGCTCTGAAATTTGGGGACTGAGTACAGCAAAATACGGTAG
 ATCAGTGGGACACAACAGGCCTTACAGCTTCTCTGAACAAACCAGGTCTCTTGATGGCCGCTTTCAGGT
 TTCACACCGGAAAGGGTTGCCACATGTTATATATTGCCGGCTCTGGCGCTGGCCGGACCTTCACAGTCAT
 CATGAGCTCAAGGCAATCGAAAACGCAATATGCTTTTAACTGAAAAAAGATGAAGTGTGTGAAATC
 CGTACCCTACCAGAGAGTTGAGACCCAGTCTTGCCCTCCAGTCTTAGTGCCTCGGCACACGGAGATTCT
 AACAGAAGTCCGCCCCCTGGATGACTACACCCACTCCATTCAGAAAACACAAAATTTCCAGCAGGAATT
 GAGCCACAGAGTAATTACATCCCAGAAAACACCACCACCTGGATATATCAGTGAAGATGGAGAAAACAGTG
 ACCAACAGTTGAACCAAAGTATGGACACAGGCTCTCCGGCTGAACGTCTCCTACTACTCTCTCTCTGT
 TAATCACAGCTTGGATTTGCAGCCAGTTACTTACTCGAACCTGCATTCTGGTGTCAATCGCATACTAT
 GAACTAAACCAGAGGGTTGGAGAGACCTTCCATGCGTACAGCCCTCGCTCACTGTAGACGGCTTCACAG
 ACCCATCAAACCTCGAGAGGTTCTGCTTAGGCTTGCTCTCAACGTTAACCGAAATGCCACTGTAGAAAT
 GACAAGAAGACATATAGGAAGGGGAGTGCCTTGATTACATAGGTGGGGAAGTGTGCTGAGTGCCTA
 AGTGATAGTGAATCTTTGTGCAGAGCCCAACTGTAACCAAGAAATTTGCTGCTCTTCTGGCTCAGTC
 GTAAGATCCCACCAGGCTGTAACCTGAAGATCTTCAACAACCAAGAAATTTGCTGCTCTTCTGGCTCAGTC
 TGCAACCAGGGTTTTGAAGCCGTTTATCAGCTAACCCGAATGTGACCATAAGAATGAGTTTTGTGAAG
 GGCTGGGAGCAGAATATCGGAGGCAGACAGTAACAAGTACTCCTTGCTGGATTGAACTTCATCTGAATG
 GCCCTCTGCAGTGGCTGGACAAAGTATTAACCTCAGATGGGATCCCTTCAGTGGGATGCTCAAGCATGTC
 GTAA

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-MluI
- ACCN:** NM_001252481
- Insert Size:** 1404 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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: [NM_001252481.1](#), [NP_001239410.1](#)

RefSeq Size: 8863 bp

RefSeq ORF: 1404 bp

Locus ID: 17126

UniProt ID: [Q62432](#)

Cytogenetics: 18 51.42 cM

Gene Summary: Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. Binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD2/SMAD4 complex, activates transcription. May act as a tumor suppressor in colorectal carcinoma. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Both variants 1 and 2 encode the same isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.