

## Product datasheet for **MR230056**

### Smad2 (NM\_001252481) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smad2 (NM_001252481) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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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**ORF Nucleotide Sequence:**

>MR230056 representing NM\_001252481  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCGTCACCTCTGCCATTCACCTCCGCCAGTGGTGAAGAGACTTCTGGGATGAAAAAATCAGCCGGTG  
 GGTCTGGAGGAGCAGGTGGTGGAGAGCAGAATGGACAGGAAGAAAAGTGGTGTGAAAAAGCAGTGAAAAAG  
 TCTGGTAAAAAGCTAAAGAAAAACAGGACGGTTAGATGAGCTTGAGAAAGCCATCACCCTCAGAATTGC  
 AATACTAAATGTGTCACCATACCAAGCACTTGCTCTGAAATTTGGGGACTGAGTACAGCAAAATACGGTAG  
 ATCAGTGGGACACAACAGGCCTTACAGCTTCTCTGAACAAACCAGGTCTCTTGATGGCCGCTTTCAGGT  
 TTCACACCGGAAAGGGTTGCCACATGTTATATATTGCCGGCTCTGGCGCTGGCCGGACCTTCACAGTCAT  
 CATGAGCTCAAGGCAATCGAAAACGCAATATGCTTTTAACTGAAAAAAGATGAAGTGTGTGAAATC  
 CGTACCCTACCAGAGAGTTGAGACCCAGTCTTGCCCTCAGTCTTAGTGCCTCGGCACACGGAGATTCT  
 AACAGAAGTCCGCCCCCTGGATGACTACACCCACTCCATTCCAGAAAACAAAAATTTCCAGCAGGAATT  
 GAGCCACAGAGTAATTACATCCCAGAAAACACCACCCTGGATATATCAGTGAAGATGGAGAAAACAGTG  
 ACCAACAGTTGAACCAAAGTATGGACACAGGCTCTCCGGCTGAAGTGTCTCCTACTACTCTCTCTCTGT  
 TAATCACAGCTTGGATTTGCAGCCAGTTACTTACTCGAACCTGCATTCTGGTGTCAATCGCATACTAT  
 GAACTAAACCAGAGGGTTGGAGAGACCTTCCATGCGTACAGCCCTCGCTCACTGTAGACGGCTTCACAG  
 ACCCATCAAACCTCGAGAGGTTCTGCTTAGGCTTGCTCTCCAACGTTAACCGAAATGCCACTGTAGAAAT  
 GACAAGAAGACATATAGGAAGGGGAGTGCCTTGATTACATAGTGGGGAAGTGTGCTGAGTGCCTA  
 AGTGATAGTGAATCTTTGTGCAGAGCCCAACTGTAACCAGAGATACGGCTGGCACCCTGCAACAGTGT  
 GTAAGATCCCACCAGGCTGTAACCTGAAGATCTTCAACAACAAAGAAATTTGCTGCTCTTCTGGCTCAGTC  
 TGTCAACCAGGGTTTTGAAGCCGTTTATCAGCTAACCCGAATGTGCACCATAAGAATGAGTTTTGTGAAG  
 GGCTGGGAGCAGAAATATCGGAGGCAGACAGTAACAAGTACTCCTTGCTGGATTGAACCTCATCTGAATG  
 GCCCTCTGCAGTGGCTGGACAAAGTATTAACCTCAGATGGGATCCCCTTCACTGCGATGCTCAAGCATGTC  
 G

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230056 representing NM\_001252481  
 Red=Cloning site Green=Tags(s)

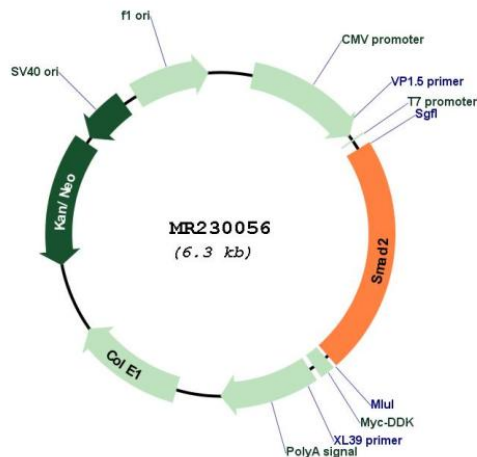
MSSILPFTPPVVKRLLGWKSAGGSGGAGGGEQNGQEEKWCEKAVKSLVKLKKTGRLDELEKAITTQNC  
 NTKCVTIPSTCSEIWGLSTANTVDQWDTTGLYSFSEQTRSLDGRLQVSHRKLPHVIYCRLLWRWPDLHSH  
 HELKAIENCEYAFNLKKDEVCVNPHYQYRVEPVLPPVLVPRHTEILTELPPLDDYTHSIPENTNFPAGI  
 EPQSNYIPETPPPGYISEDGETSDQQLNQSMGTGSPAELSPPTLSPVNHSLDLQPVTYSEPAFWCSIAYY  
 ELNQRVGETTFHASQPSLTVDFGTDPSNSERFCLGLLSNVNRNATVEMTRRHIGRGVRLYYIGGEVFAECL  
 SDSAIFVQSPNCNQRYGWHPATVCKIPPGCNLKFNNQEFALLAQSVNQGFVAVYQLTRMCTIRMSFVK  
 GWGAEYRRQTVTSTPCWIELHLNGPLQWLDKVLQMGSPSVRCSSMS

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001252481

**ORF Size:** 1401 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001252481.1</a> , <a href="#">NP_001239410.1</a>
<b>RefSeq Size:</b>	8863 bp
<b>RefSeq ORF:</b>	1404 bp
<b>Locus ID:</b>	17126
<b>UniProt ID:</b>	<a href="#">Q62432</a>
<b>Cytogenetics:</b>	18 51.42 cM
<b>MW:</b>	52.7 kDa
<b>Gene Summary:</b>	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]