

Product datasheet for **MR206770**

Smad3 (NM_016769) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smad3 (NM_016769) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smad3
Synonyms:	AU022421; Madh3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR206770 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTCGTCACCTCCTGCCCTTACCCCCCGATCGTGAAGCGCCTGCTGGTTGGAAGAAGGGCGAGCAGA
 ACGGGCAGGAGGAGAAGTGGTGCAGAGAAGCGGTC AAGAGCTTGGTGAAGAAGCTCAAGAAGACGGGCA
 GTTGGACGAGCTGGAGAAGGCCATCACCACGCAGAACGTGAACACCAAGTGCATTACCATCCCCAGGTCA
 CTGGATGGTCGGCTGCAGGTGTCCATCGGAAGGGCTCCCTCACGTTATCTACTGCCGCCTGTGGCGAT
 GGCCCGACCTGCACAGCCACCATGAATTACGGCCATGGAGCTCTGTGAGTTTGCCTTCAACATGAAGAA
 GGATGAAGTGTGTAAATCCTTACCACATCAGAGAGTAGAGACGCCAGTTCTACCTCCAGTGTGGTG
 CCACGCCACACCGAGATCCGGCCGAGTCCCCCACTGGATGACTACAGCCATTCCATTCCCGAGAACA
 CTAACTTCCCTGCTGGCATTGAGCCCCAGAGCAATATTCCAGAAACCCACCTCTGGCTACCTGAGTGA
 AGATGGAGAAACAGTGACCACAGATGAACCACAGCATGGACGCAGGTTCTCAAACCTCTCCCGAAT
 CCGATGTCCCAGCACACAATAACTTGGACCTACAGCCAGTCACCTACTGTGAGCCGGCCTTCTGGTGCT
 CCATCTCTACTACGAGCTGAACCAGCGAGTTGGGGAGACATTCCACGCCTCACAGCCATCCATGACAGT
 AGATGGCTTCACTGACCCCTCCAACCTCGGAGCGCTTCTGCCTGGGCTACTGTCCAATGTCAACCGAAT
 GCAGCCGTGGAACCTACAAGGCGACACATTGGGAGAGGTGTGCGGCTCTACTACATCGGAGGGGAGGTCT
 TTGCGGAGTGCCTCAGTGACAGTGTATTTTCTGCTCAGTCTCCAACTGCAACACGCGCTATGGCTGGCA
 CCCGGCCACTGTCTCAAGATCCCACAGGCTGCAACCTGAAGATCTTCAACAACCAGGAATTTGCTGCC
 CTCCTAGCTCAGTCTGTCAACCAGGGCTTTGAGGCTGTCTACCAGCTGACGCGCATGTGCACCATCCGTA
 TGAGCTTCGTCAAAGGCTGGGGAGCAGAGTACAGGAGACAGACAGTGACCAGCACCCCTGCTGGATTGA
 GCTACACCTGAATGGACCCTTGCAGTGGCTTGACAAGGTCTCACCCAGATGGGTTCCCCGAGCATCCGC
 TGTTCAGTGTGTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR206770 protein sequence
 Red=Cloning site Green=Tags(s)

MSSILPFPPIVKRLLGWKKGEQNGQEEKWCEKAVKSLVKLLKKTGQLDELEKAITTQNVNTKCITIPRS
 LDGRLQVSHRGLPHVIYCRWRPDLHSHHELAMELCEFAFNMKKDEVCVNPHYHYQVETPVLPPVLV
 PRHTEIPAEPPLDDYSHSIPENTNFPAGIEPQSNIPETPPPGYLSHGGETSDHQMNHSM DAGSPNLSPN
 PMSPAHNLDLQPVTYCEPAFWCSISYYELNQRVGETFHASQPSMTVDGFTDPSNSERFCLGLLSNVNRN
 AAVELTRRHIGRGVRLYYIGGEVFAECLSDSAIFVQSPNCNQRYGWHPATVCKIPPGCNLKIFNNQEFAA
 LLAQSVNQGF EAVYQLTRMCTIRMSFVKGWGAEYRRQTVTSTPCWIELHLNGLQWLDKVLTMGSPSIR
 CSSVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

ACCN: NM_016769

ORF Size: 1278 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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).

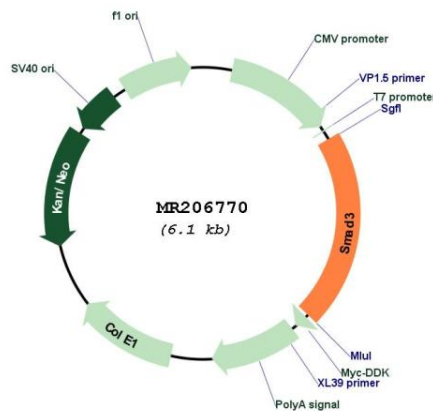
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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: [NM_016769.4](#)

RefSeq Size: 5090 bp
 RefSeq ORF: 1278 bp
 Locus ID: 17127
 UniProt ID: [Q8BUN5](#)
 Cytogenetics: 9 C
 MW: 48.1 kDa

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 SMAD3/SMAD4 complex, activates transcription. Also can form a SMAD3/SMAD4/JUN/FOS complex at the AP-1/SMAD site to regulate TGF-beta-mediated transcription. Has an inhibitory effect on wound healing probably by modulating both growth and migration of primary keratinocytes and by altering the TGF-mediated chemotaxis of monocytes. This effect on wound healing appears to be hormone-sensitive. Regulator of chondrogenesis and osteogenesis and inhibits early healing of bone fractures. 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]

Product images:



Circular map for MR206770