

Product datasheet for **RC203603**

SMAD6 (NM_005585) Human Tagged ORF Clone

Product data:

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|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | SMAD6 (NM_005585) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | SMAD6 |
| Synonyms: | AOVD2; HsT17432; MADH6; MADH7 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RC203603 representing NM_005585
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTTTCAGGTCCAAACGCTCGGGCTGGTGCGGCGACTTTGGCGAAGTCGTGTGGTCCCCGACCGGGAGG
 AAGGCGCAGCGCGCGCGGTGGCGGACGAGGATGGGAGCTTGGGAGCCGAGCTGAGCCGGCCCC
 CGGGGCAAGAGAGGGCGGAGGCTCGGGCGCTCCGAAGTCCGCCCGTAGCCCGCGCGGCCCGGGAC
 GCAGTGGGACAGCGAGCGCCAGGGCGCGGGAGGCGCGCGCAGGGGGCCCCGAGGCCATGT
 CGGAGCCAGGGGCGGCGCTGGGAGCTCCCTGCTGGACGTGGCGGAGCCGGGAGGCCGGCTGGCTGCC
 CGAGAGTGACTGCGAGACGGTGACTGCTGTCTTTTCGGAGCGGGACGCCCGCGCGCCCCGGGAC
 GCCAGCGACCCCTGGCCGGGGCGCCCTGGAGCCGGCGGGCGGGCGGAGTCGCGAAGCGCGCTCGC
 GGCTGCTGCTGGAGCAGAACTCAAACCGTCACGTACTCGTGTGAAGCGGCTCAAGGAGCGCTC
 GCTGGACACGCTGCTGGAGCGGTGGAGTCCCGCGCGCGCTGCCGGCGGCTGCGTGTGGTCCCGC
 GCCGACCTCCGCCTGGGCGGCCAGCCCGCGCCGCGCAGCTGCTGCTCGGCCGCCTTTTCGCTGGCCCC
 ACCTGCAGCACGCCGTGGAGCTGAAGCCCTGTGCGGCTGCCACAGCTTCGCCCGCCGCCGACGGCCC
 TACCGTGTGCTGCAACCCCTACCACTTACAGCCGCTCTGCGGGCCGAATCTCCGCCACCTCCCTACTCT
 CGGCTGTCTCCTCGCGACGAGTACAAGCCACTGGATCTGTCCGATTCCACATTGTCTTACTGAAACGG
 AGGCTACCAACTCCCTCATCACTGCTCCGGTGAATTCTCAGACGCCAGCATGTCTCCGGACCCACAA
 GCCGAGCCACTGGTGCAGCGTGGCGTACTGGGAGCACCGGACGCGCGTGGGCCCTCTATGCGGTGAC
 GACCAGGCCGTCAGCATCTTCTACGACCTACCTCAGGGCAGCGGCTTCTGCTGGCCAGCTCAACTGG
 AGCAGCGCAGCGAGTGGTGGCGGAACCGCAGCAAGATCGGCTTCGGCATCTGCTCAGCAAGGAGCC
 CGACGGCGTGTGGCCTACAACCGCGCCGAGCACCCCATCTTCGCAACTCCCGACGCTGGACCGGCC
 GCGCGCCGCGCCCTGGTGTGCGCAAGGTGCCCGCGCTACTCCATCAAGGTGTTGACTTCGAGCGCT
 CGGGCTGCGAGCAGCGCCGAGCCGACCGCGCGGACGGCCCTACGACCCCAACAGCGTCCGATCAG
 CTTCCGAAGGGCTGGGGCCCTGCTACTCCCGCAGTTCATCACCTCTGCCCTGCTGGTGGAGATC
 CTCCTCAACAACCCAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203603 representing NM_005585
 Red=Cloning site Green=Tags(s)

MFRSKRSGLVRRLLWRSRVDPDREEGSGGGGGDEEDGSLGSRAPAPRAREGGGCRSEVRPVAPRRPRD
 AVGQRGAQAGARRRRRAGPPRPMSEPGAGAGSLLDVAEPGGPGWLPESDCETVTCCLFSERDAAGAPRD
 ASDPLAGAALPAGGGRSREARSRLLLLEQELKTVTYSLLKRLKERSLDTLLEAVESRGGVPGCVLVPR
 ADLRLGGQPAPPQLLLGRLFRWPDQLHVELKPLCGHSFAAAADGPTVCCNPHYFSRLCGPESPPPPYS
 RLSRDEYKPLDLSDSTLSYTETEATNSLITAPGEFSDASMPDATKPSHWCSVAYWEHRTRVGRLYAVY
 DQAVSIFYDLPPQGSFCLGQLNLEQRSESVRTRRSKIGFGILLSKEPDGVWAYNRGEHPFVNSPTLDAP
 GGRALVVRKVPPGYSIKVDFERSGLQHAPEPDAADGPYPNSVRI SFAKGWGPCYSRQFITSCPCWLEI
 LLNNPR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja3398_c10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

ACCN: NM_005585

ORF Size: 1488 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](#)

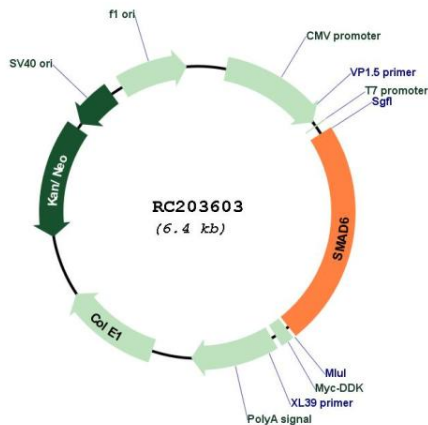
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

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|-------------------|--|
| RefSeq: | <u>NM_005585.5</u> |
| RefSeq Size: | 2886 bp |
| RefSeq ORF: | 1491 bp |
| Locus ID: | 4091 |
| UniProt ID: | <u>O43541</u> |
| Cytogenetics: | 15q22.31 |
| Domains: | DWB, DWA, MH1 |
| Protein Families: | Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors |
| Protein Pathways: | TGF-beta signaling pathway |
| MW: | 53.5 kDa |
| Gene Summary: | The protein encoded by this gene belongs to the SMAD family of proteins, which are related to Drosophila 'mothers against decapentaplegic' (Mad) and C. elegans Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions in the negative regulation of BMP and TGF-beta/activin-signalling. Multiple transcript variants have been found for this gene.[provided by RefSeq, Sep 2014] |

Product images:



Circular map for RC203603