

Product datasheet for **RG227476**

SMAD3 (NM_001145102) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMAD3 (NM_001145102) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SMAD3
Synonyms:	HSPC193; HsT17436; JV15-2; LDS1C; LDS3; MADH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG227476 representing NM_001145102 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCGTCCTCCTGCTTTCACTCCCCGATCGTGAAGCGCCTGCTGGGCTGGAAGAAGGGCGAGCAGA
 ACGGGCAGGAGAGAAATGGTGCAGAGAAGGCGGTCAAGAGCCTGGTCAAGAACTCAAGAAGACGGGGCA
 GCTGGACGAGCTGGAGAAGGCCATCACACGCAGAACGTAACACCAAGTGCATCACCATCCCCAGGTCC
 CTGGATGGCCGTTGCAGGTGTCCATCGGAAGGGGCTCCCTCATGTCATCTACTGCCGCTGTGGCGAT
 GGCCAGACCTGCACAGCCACCAGAGCTCGGGCCATGGAGCTGTGTGAGTTCGCCTTCAATATGAAGAA
 GGACGAGGTCTGCGTGAATCCCTACCACTACCAGAGAGTAGAGACACCAAGTCTACCTCCTGTGTTGGTG
 CCACGCCACACAGAGATCCCGGCCGAGTTCCTCCCACTGGACGACTACAGCCATTCCATCCCCGAAAACA
 CTAATTCCTCCGAGGCATCGAGCCCCAGAGCAATATCCAGAGACCCACCCCTGGCTACCTGAGTGA
 AGATGGAGAAACCAAGTGACCAACAGATGAACACAGCATGGACGAGGTTCTCCAAACCTATCCCCGAAT
 CCGATGTCCCAGCACATAATACTGGACCTGCAGCCAGTTACCTACTGCGAGCCGGCCTTCTGGTGCT
 CCATCTCCTACTACGAGCTGAACAGCGCGTCGGGAGACATTCCACGCTCGCAGCCATCCATGACTGT
 GGATGGCTTACCAGCCCTCCAATTCGAGCGCTTCTGCCTAGGGCTGCTCTCAATGTCAACAGGAAT
 GCAGCAGTGGAGCTGACACGGAGACACATCGGAAGAGGCGTGGGCTCTACTACATCGGAGGGGAGGTCT
 TCGCAGAGTGCCTCAGTGACAGCGCTATTTTGTCCAGTCTCCCACTGTAAACAGCGCTATGGCTGGCA
 CCCGGCCACCGTCTGCAAGATCCCAACAGGATGAACCTGAAGATCTTCAACAACAGGAGTTTCGCTGCC
 CTCCTGGCCAGTCGGTCAACAGGGCTTTGAGGCTGTCTACCAGTTGACCCGAATGTGCACCATCCGCA
 TGAGCTTCGTCAAAGGCTGGGAGCGGAGTACAGGAGACAGACTGTGACCAAGTACCCCTGCTGGATTGA
 GCTGCACCTGAATGGGCTTTGCAGTGGCTTGACAAGTCTCACCCAGATGGGCTCCCCAAGCATCCGC
 TGTTCAGTGTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG227476 representing NM_001145102
 Red=Cloning site Green=Tags(s)

MSSILPFTPIVKRLLGWKKGEQNGQEEKWCEKAVKSLVKLLKKTGQLDELEKAITTQNVNTKCITIPRS
 LDGRLQVSHRGLPHVIYCRWLWRWPDLSHSHELRAMELCEFAFNMKKDEVCPNPYHYQVETPVLPPVLV
 PRHTEIPAEPPLDDYSHSIPENTNFPAGIEPQSNIPETPPPGLYSEDGETSDHQMNSMDAGSPNLSN
 PMSPAHHNLDLQPVTYCEPAFWCSISYYELNQRVGETFHASQPSMTVDGFTDPSNSERFCLGLLSNVNRN
 AAVELTRRHIGRGVRLYYIGGEVFAECLSDSAIFVQSPNCNQRYGWHPATVCKIPPGCNLKIFNNQEFAA
 LLAQSVNQGFVAYQLTRMCTIRMSFVKGWGAEYRRQTVTSTPCWIELHLNGLPLQWLDKVLTMQGPSIR
 CSSVS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001145102

ORF Size: 1278 bp

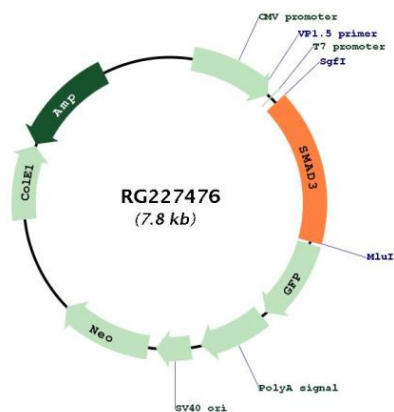
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_001145102.1, NP_001138574.1</u>
RefSeq Size:	5997 bp
RefSeq ORF:	963 bp
Locus ID:	4088
UniProt ID:	<u>P84022</u>
Cytogenetics:	15q22.33
Protein Families:	Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Stem cell relevant signaling - JAK/STAT signaling pathway, Stem cell relevant signaling - TGFb/BMP signaling pathway, Transcription Factors
Protein Pathways:	Adherens junction, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway, Wnt signaling pathway
Gene Summary:	The SMAD family of proteins are a group of intracellular signal transducer proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. The SMAD3 protein functions in the transforming growth factor-beta signaling pathway, and transmits signals from the cell surface to the nucleus, regulating gene activity and cell proliferation. It also functions as a tumor suppressor. Mutations in this gene are associated with aneurysms-osteoarthritis syndrome and Loeys-Dietz Syndrome 3. [provided by RefSeq, Nov 2019]

Product images:



Circular map for RG227476