

Product datasheet for **RG227712**

SMAD3 (NM_001145104) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMAD3 (NM_001145104) 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:	>RG227712 representing NM_001145104 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGTCATCCTCGCTTTCACTCCCCGATCGTGAAGCGCCTGCTGGGCTGGAAGAAGGGCGAGCAGA
ACGGGCAGGAGAGAAATGGTGCAGAGAAGGCGGTCAAGAGCCTGGTCAAGAACTCAAGAAGACGGGGCA
GCTGGACGAGCTGGAGAAGGCCATCACACGCAGAACGTAACACCAAGTGCATCACCATCCCCAGGTCC
CTGGATGGCCGTTGCAGGTGTCCATCGGAAGGGGCTCCCTCATGTCATCTACTGCCGCTGTGGCGAT
GGCCAGACCTGCACAGCCACCACGAGCTGCGGGCCATGGAGCTGTGTGAGTTCGCCTTCAATATGAAGAA
GGACGAGGTCTGCGTGAATCCCTACCACTACCAGAGAGTAGAGACACCAGTTCACCTCCTGTGTTGGTG
CCACGCCACACAGAGATCCCGGCCGAGTTCCTCCCACTGGACGACTACAGCCATTCCATCCCCGAAAACA
CTAACTTCCCCGAGGCATCGAGCCCCAGAGCAATATTCCAGAGACCCCAACCCCTGGCTACCTGAGTGA
AGATGGAGAAACCAAGTACCACAGATGAACCACAGCATGGACGAGGTTCTCCAACCTATCCCCGAAT
CCGATGTCCCCAGCACATAATAACTTGGACCTGCAGCCAGTTACCTACTGCGAGCCGGCCTTCTGGTGCT
CCATCTCCTACTACGAGCTGAACCAGCGGTGCGGGAGACATCCACGCCTCGCAGCCATCCATGACTGT
GGATGGCTTACCAGCCCTCAATTGCGAGCGCTTCTGCCTAGGGCTGCTCTCCAATGTCAACAGGAAT
GCAGCAGTGGAGCTGACACGGAGACACATCGGAAGAGGGCTGCGGCTCTACTACATCGGAGGGGAGGTCT
TCGCAGAGTGCCTCAGTGACAGCGCTATTTTTGTCCAGTCTCCCACTGTAACCAGCGCTATGGCTGGCA
CCCGGCCACCGTCTGCAAGATCCACCAGGATGCAACCTGAAGATCTTCAACAACCAGGAGTTTCGCTGCC
CTCCTGGCCAGTCGGTCAACCAGGGCTTTGAGGCTGTCTACCAGTTGACCCGAATGTGCACCATCCGCA
TGAGCTTCGTCAAAGGCTGGGGAGCGGAGTACAGGAGACAGACTGTGACCAGTACCCCTGCTGGATTGA
GCTGCACCTGAATGGCCCTTTCAGTGGCTTGACAAGTCTCACCCAGATGGGCTCCCCAAGCATCCGC
TGTTCCAGTGTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG227712 representing NM_001145104
 Red=Cloning site Green=Tags(s)

MSSILPFPPIVKRLLGWKKGEQNGQEEKWCEKAVKSLVKLKKTGQLDELEKAITTQNVNTKCITIPRS
 LDGRLQVSHRKGGLPHVIYCLWRWPDLSHSHLRAMELCEFAFNMKKDEVCVNPHYHYQRVETPVLPPVLV
 PRHTEIPAEFPLDDYSHSIPENTNFPAGIEPQSNIPETPPPGLYSEDGETSDHQMNHSM DAGSPNLSPN
 PMSPAHNLDLQPVTYCEPAFWCSISYELNQRVGETFHASQPSMTVDGFTDPSNSERFCLGLLSNVNRR
 AAVELTRRHIGRGLVRLYYIGGEVFAECLSDSAIFVQSPNCNQRYGWHPATVCKIPPGCNLKFNNQEFAA
 LLAQSVNQGF EAVYQLTRMCTIRMSFVKGWGA EYRRQTVTSTPCWIELHLNGLPLQWLDKVLTMQGPSIR
 CSSVS

TRTRPLE - GFP Tag - V

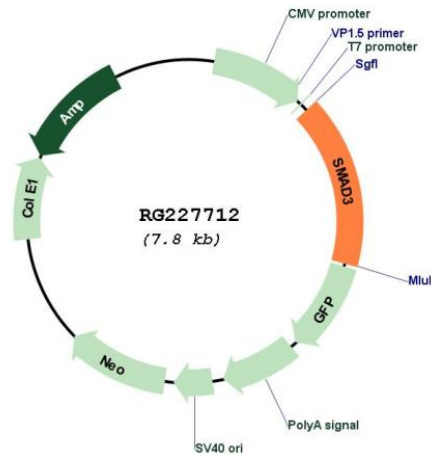
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_001145104

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:	<ol style="list-style-type: none">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_001145104.1 , NP_001138576.1
RefSeq Size:	5441 bp
RefSeq ORF:	693 bp
Locus ID:	4088
UniProt ID:	P84022
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]