

Product datasheet for RC227628

SMAD3 (NM_001145103) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMAD3 (NM_001145103) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMAD3
Synonyms:	HSPC193; HsT17436; JV15-2; LDS1C; LDS3; MADH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227628 representing NM_001145103 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCTTGCCTGCACCCTAGGCAAACGTGGAAAGGCGCAGCTCTGGTACACCGGAAAGCATGGTGGATGG
GGAGGTCCTGGATGGCCGGTTGCAGGTGCCATCGGAAGGGGCTCCCTCATGTCATCTACTGCCGCT
GTGGCGATGGCCAGACCTGCACAGCCACCAGCTACGGCCATGGAGCTGTGTGAGTTCGCTTCAAT
ATGAAGAAGGACGAGGTCTGCGTGAATCCCTACCACTACCAGAGAGTAGAGACACCAGTTCTACCTCCTG
TGTTGGTGCCACGCCACAGAGATCCCGCCGAGTTCCTCCACTGGACGACTACAGCCATTCCATCCC
CGAAAACACTAATTCCCGCAGGCATCGAGCCCAGAGCAATATTCAGAGACCCACCCCTGGCTAC
CTGAGTGAAGATGGAGAAACAGTGACCACCAGATGAACCACAGCATGGACGCGAGTTCTCCAAACCTAT
CCCCGAATCCGATGTCCCAGCACATAAATACTTGGACCTGCAGCCAGTTACCTACTGCGAGCCGGCCTT
CTGGTGTCCATCTCCTACTACGAGCTGAACCAGCGCTCGGGGAGACATTCCACGCCTCGCAGCCATCC
ATGACTGTGGATGGCTTACCGACCCCTCCAATTCGGAGCGCTTCTGCCTAGGGCTGCTCTCAAATGTCA
ACAGGAATGCAGCAGTGGAGCTGACACGGAGACACATCGGAAGAGGCGTGGGCTCTACTACATCGGAGG
GGAGGTCTTCGAGAGTGCCTCAGTGACAGCGCTATTTTTGTCCAGTCTCCAACTGTAACCAGCGCTAT
GGCTGGCACCCGGCCACCGTCTGCAAGATCCCACCAGGATGCAACCTGAAGATCTCAACAACAGGAGT
TCGCTGCCCTCCTGGCCAGTCGGTCAACCAGGGCTTTGAGGCTGTCTACCAGTTGACCCGAATGTGCAC
CATCCGCATGAGCTTCGTCAAAGGCTGGGAGCGGAGTACAGGAGACAGACTGTGACCAGTACCCCTGTC
TGGATTGAGCTGCACCTGAATGGCCTTTGCAGTGGCTTGACAAGGCTCTCACCCAGATGGGCTCCCAA
GCATCCGCTGTTCCAGTGTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC227628 representing NM_001145103
Red=Cloning site Green=Tags(s)

MSCLHPRQTWKGAALVHRKAWWMGRSLDGRLQVSHRKGLPHVIYCRLLWRWPDLSHSHHELRAMELCEFAFN
 MKKDEVCVNPYHYQRVETPVLPPVLVPRHTEIPAEPPLDDYSHSIPENTNFPAGIEPQSNIPETPPPGY
 LSEDGETSDHQMNHSM DAGSPNLSPNPMSPAHHNLDLQPVTYCEPAFWCSI SYEELNQRVGETFHASQPS
 MTVDGFTDPSNSERFLGLLSNVNRNAAVELTRRHIGRGVRLYYIGGEVFAECLSDSAIFVQSPNCNQRY
 GWHPATVCKIPPGCNLKI FNNQEF AALLAQSVNQGF EAVYQLTRMCTIRMSFVKGWGA EYRRQTVTSTPC
 WIELHLNGPLQWLDKVL TQMGSPIRCS SVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8056_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001145103

ORF Size: 1143 bp

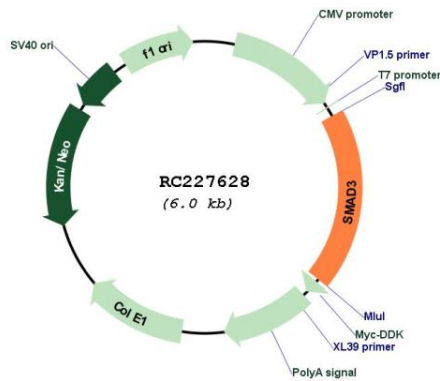
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

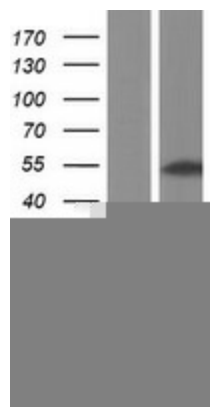
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	<u>NM_001145103.1, NP_001138575.1</u>
RefSeq ORF:	1146 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
MW:	43.1 kDa
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 RC227628



Western blot validation of overexpression lysate (Cat# [LY428691]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227628 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).