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Product datasheet for RC227610

SMAD6 (NM_001142861) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMAD6 (NM_001142861) 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)

ORF Nucleotide Sequence:

>RC227610 representing NM_001142861
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCAGAATGGGCAAACCCATAGAGACACAAAAATCTCCGCCACCTCCCTACTCTCGGCTGTCTCCTC
GCGACGAGTACAAGCCACTGGATCTGTCCGATTCCACATTGTCTTACACTGAAACGGAGGCTACCAACTC
CCTCATCACTGCTCCGGGTGAATTCTCAGACGCCAGCATGTCTCCGGACGCCACCAAGCCGAGCCACTGG
TGCAGCGTGGCGTACTGGGAGCACCGGACGCGCGTGGGCCGCCTCTATGCGGTGTACGACCAGGCCGTCA
GCATCTTCTACGACCTACCTCAGGGCAGCGGCTTCTGCCTGGGCCAGCTCAACCTGGAGCAGCGCAGCGA
GTCGGTGCGGCGAACGCGCAGCAAGATCGGCTTCGGCATCCTGCTCAGCAAGGAGCCCGACGGCGTGTGG
GCCTACAACCGCGGCGAGCACCCCATCTTCGTCAACTCCCCGACGCTGGACGCGCCCGGCGGCCGCGCCC
TGGTCGTGCGCAAGGTGCCCCCCGGCTACTCCATCAAGGTGTTCGACTTCGAGCGCTCGGGCCTGCAGCA
CGCGCCCGAGCCCGACGCCGCCGACGGCCCCTACGACCCCAACAGCGTCCGCATCAGCTTCGCCAAGGGC
TGGGGGCCCTGCTACTCCCGGCAGTTCATCACCTCCTGCCCCTGCTGGCTGGAGATCCTCCTCAACAACC
CCAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC227610 representing NM_001142861
Red=Cloning site Green=Tags(s)

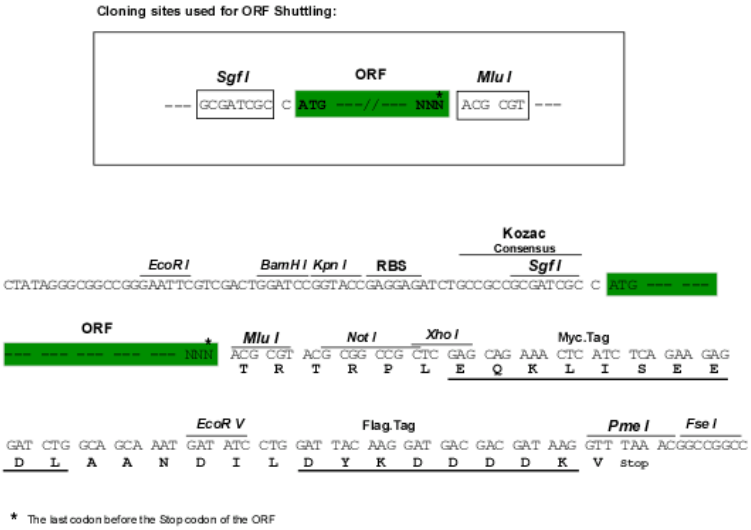
MSRMGKPIETQKSPPPPYSRLSPRDEYKPLDLSDSTLSYTETEATNSLITAPGEFSDASMSPDATKPSHW
CSVAYWEHRTRVGRLYAVYDQAVSIFYDLPQGSGFCLGQLNLEQRSESVRRTRSKIGFGILLSKEPDGVW
AYNRGEHPIFVNSPTLDAPGGRALVVRKVPPGYSIKVFDFERSGLQHAPEPDAADGPYDPNSVRISFAKG
WGPCYSRQFITSCPCWLEILLNNPR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8006_f07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001142861

ORF Size: 705 bp

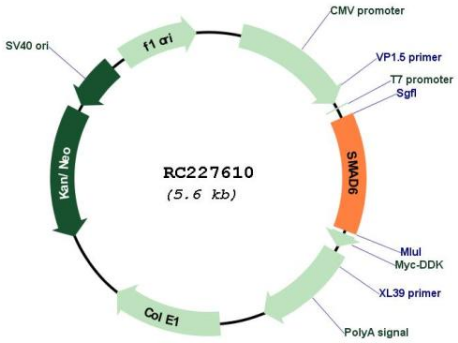
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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

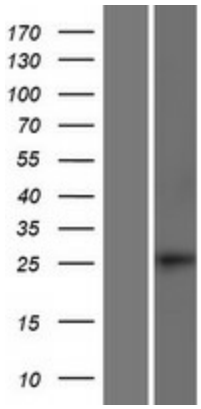
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001142861.2, NP_001136333.1
RefSeq ORF:	708 bp
Locus ID:	4091
Cytogenetics:	15q22.31
Protein Families:	Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors
Protein Pathways:	TGF-beta signaling pathway
MW:	26.1 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]

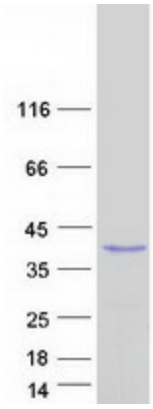
Product images:



Circular map for RC227610



Western blot validation of overexpression lysate (Cat# [LY428291]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227610 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SMAD6 protein (Cat# [TP327610]). The protein was produced from HEK293T cells transfected with SMAD6 cDNA clone (Cat# RC227610) using MegaTran 2.0 (Cat# [TT210002]).