

Product datasheet for **RC201949**

SMAD5 (NM_005903) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMAD5 (NM_005903) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMAD5
Synonyms:	DWFC; JV5-1; MADH5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201949 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACGTCAATGGCCAGCTTGTCTTTACTAGTCCAGCAGTAAAGCGATTGTTGGGCTGGAACAAG
 GTGATGAGGAGGAAATGGGCAGAAAAGCAGTTGATGCTTTGGTGAAGAACTAAAAAGAAAAGGG
 TGCCATGGAGGAAGCTGGAGAAAGCCTTGAGCAGTCCAGGACAGCCGAGTAAATGTGCACACTATCCAGAG
 TCTTTAGATGGACGCCTGCAGGTTTCTCACAGAAAAGGCTTACCCCATGTTATATATTGTCGTGTTGGC
 GCTGGCCGGATTGCAGAGTCAATGAGCTAAAGCCGTTGGATATTTGTGAATTCCTTTGGATCTAA
 GCAAAAAGAAGTTGTATCAACCCATACCACTATAAGAGAGTGGAGAGTCCAGTCTTACCTCCAGTATTA
 GTGCCCTCGTCATAATGAATCAATCCACAACACAGCCTTCTGGTTCAGTTTAGGAACCTGAGCCACAATG
 AACACACATGCCACAAAATGCCAGTTTCCAGATTCTTCCACCAGCCCAACAACACTCCTTTCCCTT
 ATCTCCAAACAGCCCTTATCCCTTCTCTGCTAGCAGCACATATCCCACTCCCAGCAAGTTCTGGA
 CCAGGAAGTCCATTTAGCTCCAGCTGATACGCCTCCTCCTGCCTATATGCCACCTGATGATCAGATGG
 GTCAAGATAAATCCAGCCTATGGATACAAGCAATAATATGATTCCTCAGATTATGCCCAGTATATCCAG
 CAGGGATGTTAGCCTGTTGCCTATGAAGAGCCTAAACATTGGTGTCAATAGTCTACTATGAATTAAC
 AATCGTGTGGAGAAGCTTTTATGCATCTTCTACTAGTGTGTTAGTAGATGGATTACAGATCCTTCAA
 ATAACAAAAGTAGATTCTGCTGGGTTTGTGTCAAATGTTAATCGTAATTCGACAATTGAAAACACTAG
 GCGACATATTGAAAAGGTGTTCACTGTACTATGTTGGTGGAGAGGTGTATGCGGAATGCCTCAGTGAC
 AGCAGCATATTTGTACAGAGTAGGAAGTCAACTTTTATCATGGCTTTTATCCCACCAGTCTGTGAAGA
 TTCCCAGCAGCTGCAGCCTCAAAATTTTAAACAATCAGGAGTTTGTCTCAGCTTCTGGCTCAATGTCAA
 CCATGGGTTTGGAGCAGTATATGAGCTCACAAAATGTGTACCATTTCGGATGAGTTTTGCAAGGGTTGG
 GGAGCAGAATATCACCGCAGGATGTAACCAGCACCCATGTTGGATTGAGATTCATCTTATGGCCCTC
 TTCAGTGGCTGGATAAAGTCTTACTCAGATGGCTCCCTCTGAACCCATATCTTCTGTTTCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201949 protein sequence
 Red=Cloning site Green=Tags(s)

MTSMASLFSFTSPAVKRLLGWKQGDEEEKWAEKAVDALVKKLLKKKKGAMEELEKALSSPGQPSKCVTI
 PRLDGRQLQVSHRGLPHVIYCRVWRWDLQSHHELKPLDICEFPFGSKQKEVCINPYHYKRVE
 SPVLPVLPVPRHNEFNPQHSLLVQFRNLSHNEPHMPQNAATFPDSFHQPNNTPFPLSPNSPYPP
 SPASSTYPNSPASSGPGSPFQLPADTPPPAYMPPDDQMGQDNSQPMDSNNMIPQIMPSSSRD
 VQPVA YEEP KHWCSIVVYELN NRVGEAFHASSTSVLVDGFTDPSNNKSRFCLGLLSNVNRNST
 IENTRRRHIGKGVHLYYVGGEVYAECLSD SSIFVQSRNCFHHGFHPTTVCKIPSSCSLKI
 FNNQEFQLLAQSVNHGF EAVYELTKMCTIRMSFVKGW GA EYHRQDVTSTPCWIEIHLHG
 PLQWLDKVL TQMG SPLNP ISSVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6001_b12.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_005903

ORF Size: 1395 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: [NM_005903.7](#)

RefSeq Size: 7014 bp

RefSeq ORF: 1398 bp

Locus ID: 4090

UniProt ID: [Q99717](#)

Cytogenetics: 5q31.1

Domains: DWB, DWA, MH1

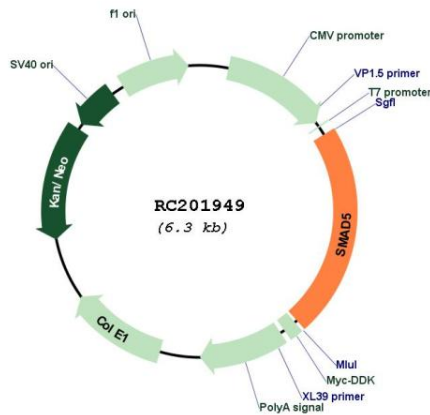
Protein Families: Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - JAK/STAT signaling pathway, Stem cell relevant signaling - TGFb/BMP signaling pathway, Transcription Factors

Protein Pathways: TGF-beta signaling pathway

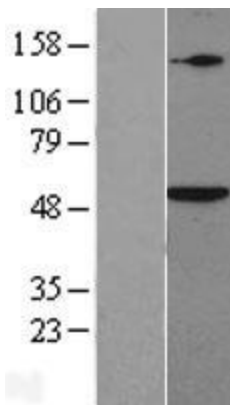
MW: 52.3 kDa

Gene Summary: The protein encoded by this gene is involved in the transforming growth factor beta signaling pathway that results in an inhibition of the proliferation of hematopoietic progenitor cells. The encoded protein is activated by bone morphogenetic proteins type 1 receptor kinase, and may be involved in cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]

Product images:



Circular map for RC201949



Western blot validation of overexpression lysate (Cat# [LY424348]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC224544] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).