

Product datasheet for **MR206911**

Smyd2 (NM_026796) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smyd2 (NM_026796) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smyd2
Synonyms:	1110020E07Rik; 4930402C15; KMT3C; Zmynd14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR206911 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGCGCCGAGGCCCGCGCGGCTGGAGCGTTCTGCAGTGGGGCAAGGGCCGGGGCTCCGCGCGC
 TCGGGCCCTCCACGTGGGCGACCTCCTTCTCTCGCCGGCCTACGCCTGCGTGCTCACCGTGGGCGA
 CGGGGGCCACCACTGCGAGTGCTGCTTCGCCAGGAAAGAAGATTGTCAAATGTGGACGGTCAAGCAG
 GCGTTCTACTGCGACGTGGAATGTCAGAAGGAAGACTGGCCCTGCACAAGCTGGAATGCTCCTCCATGG
 TTGTTTTGGGGAGAAGTGAATCCTTCGGAGACTGTGCGGCTCACAGCAAGAATTCTGGCCAAACAGAA
 AATCCACCCAGAGAGGACACCTTCAGAGAAATTGTTGGCTGTGAGGGAGTTTGTGTCACATCTGGACAAG
 CTAGACAACGAGAAGAAAGATCTCATCCAGAGTGACATCGCCGCTCTCCACCAGTTCTACTCAAGTACC
 TGAATTCCTGACCACAGCAGTCTCGTGGTCTCTCGCCAGGTGAAGTGAATGGCTTCACTATTGA
 AGATGAAGAGCTCTCCATTTGGGATCGGCGATATTCCCTGATGTTGCATTGATGAATCACAGCTGCTGC
 CCGAATGTCATTGTGACCTACAAAGGGACCCTGGCAGAAGTCAGAGCTGTACAGGAGATCCACCCAGGAG
 ACGAGGTGTTACCCAGCTACATCGACCTGCTATATCCAACAGAAGACAGGAACGACCCGGCTAAGAGACTC
 CTATTTCTTTACCTGTGAGTGCCGGGAGTGTACAACCAAGGATAAGGACAAAGCCAAAGTGGAAAGTCCGA
 AAGCTCAGCAGCCCGCCACAGGCAGAAGCCATCCGAGACATGGTCAAGATACGCACGCAATGTCATCGAGG
 AGTTCCGGAGGGCCAAACACTACAAATCCCCTAGTGAGCTGCTGGAGATCTGCGAGCTTAGCCAGGAGAA
 GATGAGCTCCGTGTTGAGGACAGCAATGTGTACATGCTGCACATGATGTACCAGGCCATGGGCGTCTGC
 CTGTACATGCAGGACTGGGAGGGAGCCCTGAAATACGGGCAGAAGATCATTAAAGCCGTACAGTAAGCACT
 ACCCCGTACTCCCTCAACGTGGCTTCCATGTGGCTGAAGCTGGGAAGACTGTACATGGGTCTGGAAAA
 CAAAGCGCCCGCGAGAAGGCCCTGAAGAAGGCCATTGCCATCATGGAGGTAGCTCACGGCAAGGACCAT
 CCGTACATCTCTGAAATCAAGCAGGAGATTGAGAGCCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR206911 protein sequence
 Red=Cloning site Green=Tags(s)

MRAEARGGLERFCSAGKGRGLRALRPFHVGDLLFSCPAYACVLTVGERGHHCECCFARKEGLSKCGRCKQ
 AFYCDVECQKEDWPLHKLECSSMVVLGENWNPSETVRLTARILAKQKIHPERTPSEKLLAVREFSHLKD
 LDNEKKDLIQSDIAALHQFYSKYLEFPDHSSLVVLFAQVNCNGFTIEDEELSHLGSAIFPDVALMNHSCC
 PNVIVTYKGLAEVRAVQEIHPGDEVFTSYIDLLYPTEDRNDRLRDSYFFTCRECTTKDKDKAKVEVR
 KLSSPPQAEAIRDVMVRYARNVIEEFRRAKHYKSPSELLEICELSQEKMSSVFEDSNVYMLHMMYQAMGVC
 LYMQDWEGALKYQKIIKPYSKHYPVYSLNVASMWLKLGRLYMGLENKAAGEKALKKAIIMEVAHGKDH
 PYISEIKQEIESH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_026796

ORF Size: 1302 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_026796.2](#)
RefSeq Size: 1619 bp

RefSeq ORF: 1302 bp

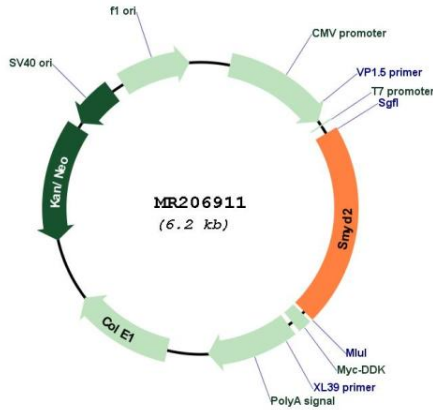
Locus ID: 226830

UniProt ID: [Q8R5A0](#)
Cytogenetics: 1 H6

MW: 49.6 kDa

Gene Summary: Protein-lysine N-methyltransferase that methylates both histones and non-histone proteins, including p53/TP53 and RB1. Specifically methylates histone H3 'Lys-4' (H3K4me) and dimethylates histone H3 'Lys-36' (H3K36me2). Shows even higher methyltransferase activity on p53/TP53. Monomethylates 'Lys-370' of p53/TP53, leading to decreased DNA-binding activity and subsequent transcriptional regulation activity of p53/TP53. Monomethylates RB1 at 'Lys-860'. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206911