

Product datasheet for **RG221269**

SMYD1 (NM_198274) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMYD1 (NM_198274) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SMYD1
Synonyms:	BOP; KMT3D; ZMYND18; ZMYND22
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG221269 representing NM_198274
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACAATAGGGAGAATGGAGACGTGGAGGTCTTCACCGCTGAGGGCAAAGGAAGGGTCTGAAGGCCA
 CCAAGGAGTTCTGGGCTGCAGATATCATCTTTGCTGAGCGGGCTTATTCCGCAGTGGTTTTTGACAGCCT
 TGTTAATTTTGTGTGCCACACCTGCTTCAAGAGGCAGGAGAAGCTCCATCGCTGTGGGCAGTGCAAGTTT
 GCCCATTACTGCGACCGCACCTGCCAGAAGGATGCTTGGCTGAACCACAAGAATGAATGTTGCGCCATCA
 AGAGATATGGGAAGGTGCCCAATGAGAACATCAGGCTGGCGGCGGCATCATGTGGAGGGTGAGAGAGA
 AGGCACCGGGCTCAGGAGGGCTGCCTGGTGTCCGTGGACGACTTGAGAACACGTTGGAGCACTTTGGG
 GAGGAGGAGCAGAAGGACCTGCGGGTGGACGTGGACACATTCTTGCACTACTGGCCGCCGAGAGCCAGC
 AGTTCAGCATGCAGTACATCTCGCACATCTTCGGAGTGATTAAGTGAACGGTTTTACTCTCAGTGATCA
 GAGAGGCTGCAGGCCGTGGGCTAGGCATCTTCCCAACCTGGGCTGGTGAACCATGACTGTTGGCCC
 AACTGTACTGTCAATTTAACAATGGCAATCATGAGGCAGTGAAATCCATGTTTTCATACCCAGATGAGAA
 TTGAGCTCCGGGCCCTAGGCAAGATCTCAGAAGGAGAGGAGCTGACTGTGTCTATATTGACTTCCTCAA
 CGTTAGTGAAGAACGCAAGAGGCAGCTGAAGAAGCAGTACTACTTTGACTGCACATGTGAACACTGCCAG
 AAAAACTGAAGGATGACCTCTTCTGGGGGTGAAGACAACCCCAAGCCCTCTCAGGAAGTGGTGAAGG
 AGATGATACAATTCTCAAGGATACATTGGAAAAGATAGACAAGGCTCGTTCCGAGGGTTTGTATCATGA
 GGTTGTGAAATTATGCCGGGAGTGCCTGGAGAAGCAGGAGCCAGTGTGTTGCTGACACCAACATCTACATG
 CTGCGGATGCTGAGCATTGTTTCGGAGGTCTTTCCTACCTCCAGGCCTTTGAGGAGGCCCTGTTCTATG
 CCAGGAGGATGGTGGACGGCTATATGAAGCTCTACCAACCAACAATGCCCACTGGGCATGGCCGTGAT
 CGGGGCAGGGCTGACCAACTGGCATGCTGGTAACATTGAGGTGGGGCACGGGATGATCTGCAAAGCCTAT
 GCCATTCTCTGTGTGACACACGACCCCTCCACCCCATCACTAAGGACTTAGAGGCCATGCGGGTGCAGA
 CGGAGATGGAGCTACGCATGTTCCGCCAGAACGAATTCATGTACTACAAGATGCGCGAGGCTGCCCTGAA
 CAACCAGCCCATGCAGGTATGCGCGAGCCAGCAATGAGCCATCCCAGCTCTGTTCCACAAGAAGCAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG221269 representing NM_198274
 Red=Cloning site Green=Tags(s)

MTIGRMENVEVFTAEGKGRGLKATKEFWAADIIFAERAYSAVVFDLSLVNFVCHTCFKRQEKLRHRCGQCKF
 AHYCDRTCQKDAWLNHKNECSAISKRYGKVPNENIRLAARIMWRVEREGTGLTEGCLVSVDLQNHVEHFG
 EEEQKDLRVDVDTFLQYWPQSQQFSMQYISHIFGVINCNGFTLSDQRLQAVGVGIFPNLGLVNHDCWP
 NCTVIFNNGNHEAVKSMFHTQMRIELRALGKISEGEELTVSYIDFLNVSEERKRLKKQYFDFCTCEHCQ
 KKLKDDLFLGVKDNPKPSQEVVKEMIQFSKDTLEKIDKARSEGLYHEVVKLCRECLEKQEPVFADTNIYM
 LRMLSIVSEVLSYLQAFEEASFYARRMVDGYMKLYHPNNAQLGMVVRAGLTNWHAGNIEVGHGMICKAY
 AILLVTHGPSHPITKDLEAMRVQTEMELRMFRQNEFMYKMRREALNNQPMQVMAEPSNEPSPALFHKQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_198274

ORF Size: 1470 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_198274.2](#), [NP_938015.1](#)

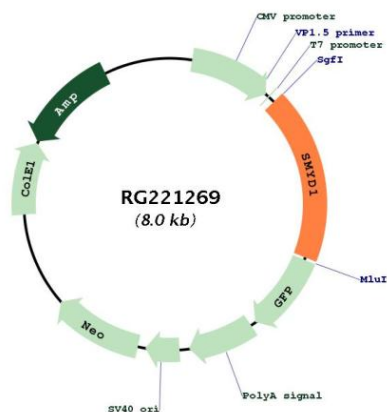
RefSeq Size: 4364 bp

RefSeq ORF: 1473 bp

Locus ID: 150572

UniProt ID:	Q8NB12
Cytogenetics:	2p11.2
Protein Families:	Druggable Genome
Gene Summary:	Methylates histone H3 at 'Lys-4' (H3K4me), seems able to perform both mono-, di-, and trimethylation. Acts as a transcriptional repressor. Essential for cardiomyocyte differentiation and cardiac morphogenesis.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG221269