

Product datasheet for **RG232549**

SUV39H2 (NM_001193425) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SUV39H2 (NM_001193425) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: SUV39H2
Synonyms: KMT1B
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG232549 representing NM_001193425
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAATATTATCTTGTAAAATGGAAAGGATGGCCAGATTCTACAATACTTGGGAACCTTTGCAAAATC
 TGAAGTGCCCGTTACTGCTTCAGCAATTCTCTAATGACAAGCATAATTATTTATCTCAGGTAAGAAAGG
 CAAAGCAATAACTCCAAAAGACAATAACAAAACCTTTGAAACCTGCCATTGCTGAGTACATTGTGAAGAAG
 GCTAAACAAAGGATAGCTCTGCAGAGATGGCAAGATGAACTCAACAGAAGAAAGAATCATAAAGGAATGA
 TATTTGTTGAAAATACTGTTGATTTAGAGGGCCACCTTCAGACTTCTATTACATTAACGAATACAAACC
 AGCTCCTGGAATCAGCTTAGTCAATGAAGCTACCTTTGGTTGTTTCATGCACAGATTGCTTCTTTCAAAA
 TGGTGTCTGCTGAAGCTGGAGTTCTTTGGCTTATAATAAAAACCAACAAATTTAAATCCCACCTGGTA
 CTCCCATCTATGAATGCAACTCAAGGTGTGAGTGTGGTCTGATTGTCCCAATAGGATTGTACAAAAAGG
 CACACAGTATTCGCTTTGCATCTTTGCAACTAGCAATGGACGTGGCTGGGGTGTAAAGACCTTTGTGAAG
 ATAAAAGAATGAGTTTTGTCATGGAATATGTTGGAGAGGTAATCACAAGTGAAGAAGCTGAAAGACGAG
 GACAGTTCTATGACAACAAGGGAATCACGTATCTTTGATCTGGACTATGAGTCTGATGAATTCACAGT
 GGATGCGGCTCGATACGGCAATGTGTCTCATTTTGTGAATCACAGCTGTGACCAAAATCTTCAGGTGTT
 AATGTTTTTCATTGATAACCTCGATACTCGTCTTCCCGAATAGCATTGTTTTCCACAAGAACCATAAATG
 CTGGAGAAGAGCTGACTTTTATTATCAAATGAAAGTTCTGGAGATATATCTTCAGATTCTATTGACCA
 CAGCCAGCCAAAAGAGGGTCAGAACAGTATGTAATGTGGAGCTGTGACTTGCAGAGGTTACCTCAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232549 representing NM_001193425
 Red=Cloning site Green=Tags(s)

MEYYLVKWKGWPDSTNTWEPLQNLKCPDLLLQQFSNDKHNYLSQVKKGKAITPKDNNKTLKPAIAEYIVKK
 AKQRIALQRWQDELNRRKNHKGMI FVENTVDLEGPPSDFYYINEYKPAPGISLVNEATFGCSCTDCFFQK
 CCPAEAGVLLAYNKNQIQIKIPPGTPIYECNSRCQCGPDCPNRIVQKGTQYSLCIFRTSNGRGGVVKTLVK
 IKRMSFVMEYVGEVITSEEAERRGQFYDNKGITYLFDLDYSEDEFVDAARYGNVSHFVNHSCDPNLQVF
 NVFIDNLDTRLPRIALFSTR TINAGEELTFDYQMKGSGDISSDSIDHSPAKKRVRTVCKCGAVTCRGLN

TRTRPLE - GFP Tag - V

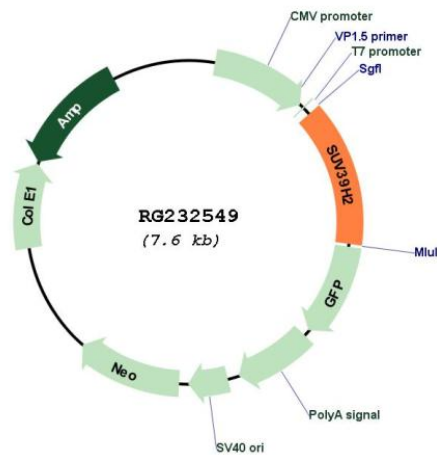
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001193425

ORF Size: 1050 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:	NM_001193425.1 , NP_001180354.1
RefSeq Size:	3106 bp
RefSeq ORF:	1053 bp
Locus ID:	79723
UniProt ID:	Q9H5I1
Cytogenetics:	10p13
Protein Families:	Druggable Genome
Protein Pathways:	Lysine degradation
Gene Summary:	Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3 using monomethylated H3 'Lys-9' as substrate. H3 'Lys-9' trimethylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones. Mainly functions in heterochromatin regions, thereby playing a central role in the establishment of constitutive heterochromatin at pericentric and telomere regions. H3 'Lys-9' trimethylation is also required to direct DNA methylation at pericentric repeats. SUV39H1 is targeted to histone H3 via its interaction with RB1 and is involved in many processes, such as cell cycle regulation, transcriptional repression and regulation of telomere length. May participate in regulation of higher-order chromatin organization during spermatogenesis. Recruited by the large PER complex to the E-box elements of the circadian target genes such as PER2 itself or PER1, contributes to the conversion of local chromatin to a heterochromatin-like repressive state through H3 'Lys-9' trimethylation.[UniProtKB/Swiss-Prot Function]