

## Product datasheet for **RG231078**

### SUV39H2 (NM\_001193426) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SUV39H2 (NM\_001193426) 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:** >RG231078 representing NM\_001193426  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGCGGTCGGGGCCGAGGCGGAGGAGCTTGGTGTGTGCCTTGCCTAGTTTCACTTGATACTTTC  
AGGAATTATGTAGAAAAGAAAAGCTCACATGTAATCGATTGGAATCACCAAAGGAATCTAAACAATTA  
TGAGGTGGAATACTTGTGTGACTACAAGGTAGTAAAGGATATGGAATATTATCTTGTAAAATGGAAAGGA  
TGCCAGATTCTACAAACTTTGGGAACCTTTGCAAAATCTGAAGTGCCCGTTACTGCTTCAGCAATTCT  
CTAATGACAAGCATAATTATTTATCTCAGGTAATCACAAGTGAAGAAGCTGAAAGACGAGGACAGTTCTA  
TGACAACAAGGGAATCAGTATCTCTTTGATCTGGACTATGAGTCTGATGAATTCACAGTGGATGCGGCT  
CGATACGGCAATGTGTCTCATTTTGTGAATCACAGCTGTGACCCAAATCTTCAGGTGTTCAATGTTTTCA  
TTGATAACCTCGATACTCGTCTTCCCGAATAGCATTGTTTTCCACAAGAACCATAAATGCCTGGAGAAGA  
GCTGACTTTTGTATTCAAAATGAAAGTTCTGGAGATATCTTCAGATTCTATTGACCACGCCAGCCAGCC  
AAAAGAGGGTCAGAACAGTATGTAATGTGGAGCTGTGACTTGCAGAGGTTACCTCAAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG231078 representing NM\_001193426  
 Red=Cloning site Green=Tags(s)

MAAVGAEARGAWCVPLVSLDTLQELCRKEKLTKSIGITKRNLNNEYVEYLCDYKVVKDMEYLVKWKG  
 WPDSTNTWEPLQNLKCPLLLQFQFNDKHNYSQVITSEEAEERRGQFYDNKGITYLFDLDYESDEFTVDA  
 RYGNVSHFVNHSCDPLQVFNVIDNLDTRLPRIALFSTRINAGEELTFDYQMGSGDISSDSIDHSPA  
 KKRVRTVCKCGAVTCRGYLN

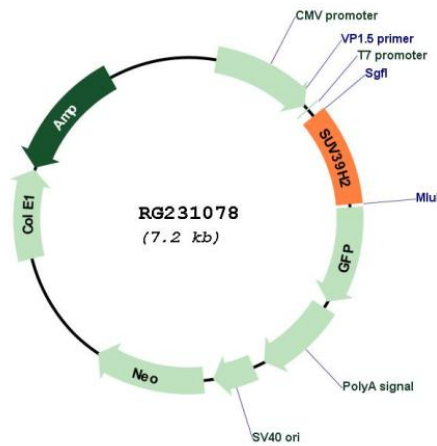
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001193426

ORF Size: 690 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001193426.1</a> , <a href="#">NP_001180355.1</a>
<b>RefSeq Size:</b>	2608 bp
<b>RefSeq ORF:</b>	693 bp
<b>Locus ID:</b>	79723
<b>UniProt ID:</b>	<a href="#">Q9H5I1</a>
<b>Cytogenetics:</b>	10p13
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Lysine degradation
<b>Gene Summary:</b>	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]