

## Product datasheet for **SC329431**

### SUV39H2 (NM\_001193425) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SUV39H2 (NM\_001193425) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** SUV39H2  
**Synonyms:** KMT1B  
**Vector:** pCMV6-Entry (PS100001)  
**Fully Sequenced ORF:** >SC329431 representing NM\_001193425.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

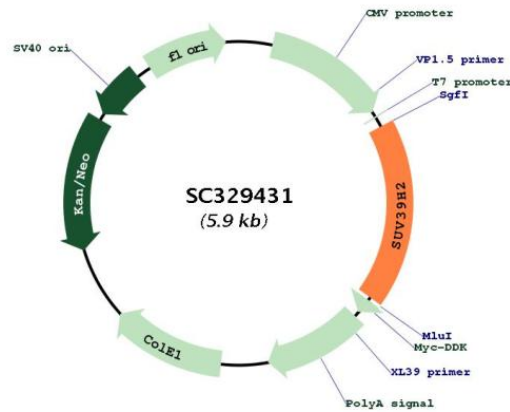
```
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CTGAAGTGCCCGTTACTGCTTCAGCAATTCTCTAATGACAAGCATAATTATTTATCTCAGGTAAAGAAA
GGCAAAGCAATAACTCCAAAAGACAATAACAAAACCTTTGAAACCTGCCATTGCTGAGTACATTGTGAAG
AAGGCTAAACAAAGGATAGCTCTGCAGAGATGGCAAGATGAACTCAACAGAAGAAAGAATCATAAAGGA
ATGATATTTGTTGAAAACTGTTGATTTAGAGGGCCACCTTCAGACTTCTATTACATTACGAATAC
AAACCAGCTCCTGGAATCAGCTTAGTCAATGAAGCTACCTTTGGTTGTTTCATGCACAGATTGCTTCTTT
CAAAAATGTTGTCTGCTGAAGCTGGAGTTCTTTTGGCTTATAATAAAAACCAACAAATTAATCCCA
CCTGGTACTCCCATCTATGAATGCAACTCAAGGTGTCAGTGTGGTCTGATTGTCCCAATAGGATTGTA
CAAAAAGGCACACAGTATTTCGCTTTGCATCTTTTGAAGTACGCAATGGACGTGGCTGGGGTGTAAAGACC
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GAAAGACGAGGACAGTTCTATGACAACAAGGGAATCACGTATCTCTTTGATCTGGACTATGAGTCTGAT
GAATTCACAGTGGATGCGGCTCGATACGGCAATGTGTCTCATTGTTGTAATCACAGCTGTGACCCAAAT
CTTCAGGTGTTCAATGTTTTTCATTGATAACCTCGATACTCGTCTCCCGAATAGCATTGTTTTCCACA
AGAACCATAAATGCTGGAGAAGAGCTGACTTTTGATTATCAAATGAAAGGTTCTGGAGATATATCTTCA
GATTCTATTGACCACAGCCAGCCAAAAAGAGGGTCAGAACAGTATGTAATGTGGAGCTGTGACTTGC
AGAGGTTACCTCAACTGA
```

**Restriction Sites:** SgfI-MluI



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Plasmid Map:



ACCN: NM\_001193425

Insert Size: 1053 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_001193425.1](#)

RefSeq Size: 3106 bp

RefSeq ORF: 1053 bp

Locus ID: 79723

UniProt ID: [Q9H5I1](#)

Cytogenetics: 10p13

Protein Families: Druggable Genome

Protein Pathways: Lysine degradation

MW: 39.9 kDa

**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]

Transcript Variant: This variant (2) contains an alternate 5' terminal exon compared to variant 1. This results in translation initiation from an in-frame, downstream AUG, and a shorter isoform (2) compared to isoform 1. Variants 2 and 3 encode the same isoform.