

## Product datasheet for **SC125719**

### SUV39H2 (NM\_024670) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SUV39H2 (NM_024670) Human Untagged Clone
Tag:	Tag Free
Symbol:	SUV39H2
Synonyms:	KMT1B
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_024670 edited  
CGGGGCCGAGGCCGAGGAGGTGAGGCTGGAGCGCGGCCCTCGCCTTCCTGTCCCCA  
GGCAAGCTCCCAAGGCCGCGGGCGGGCCGTCCCGCGGCCAGCCAGATGGCGACGTG  
GCGGTTCCCGCCGCGCGACCCCAACTCCGGGACGCACGCTGCGGACGCCTATCCTCC  
CCCAGGCCGTGACCCGCTCCCTGCCCGCGGCTCCCGCCGCGGAGGATATGGAATAT  
TATCTTGTAAAATGAAAGGATGGCCAGATTCTACAAATACTTGGGAACCTTTGAAAAAT  
CTGAAGTGCCCGTTACTGCTTCAGCAATTCTCTAATGACAAGCATAATTATTTATCTCAG  
GTAAAGAAAGGCAAAGCAATAACTCCAAAAGACAATAACAAAACCTTTGAAACCTGCCATT  
GCTGAGTACATTGTGAAGAAGGCTAAACAAGGATAGCTCTGCAGAGATGGCAAGATGAA  
CTCAACAGAAGAAAGAATCATAAAGGAATGATATTTGTTGAAAAACTGTTGATTTAGAG  
GGCCACCTTCAGACTTCTATTACATTAACGAATACAAACCAGCTCCTGGAATCAGCTTA  
GTCAATGAAGCTACCTTTGGTTGTTTCATGCACAGATTGCTTCTTTCAAAAATGTTGTCCT  
GCTGAAGCTGGAGTTCTTTGGCTTATAATAAAAACCAACAAATTTAAAATCCCACCTGGT  
ACTCCCATCTATGAATGCAACTCAAGGTGTCAGTGTGGTCTGATTGTCCCAATAGGATT  
GTACAAAAGGCACACAGTATTCGCTTTGCATCTTTGCAACTAGCAATGGACGTGGCTGG  
GGTGTAAGACCCTTGTGAAGATTAAGAAGATGAGTTTTGTCATGGAATATGTTGGAGAG  
GTAATCACAAGTGAAGAAGCTGAAAGACGAGGACAGTTCTATGACAACAAGGGAATCAGC  
TATCTCTTTGATCTGGACTATGAGTCTGATGAATTCACAGTGGATGCGGCTCGATACGGC  
AATGTGCTCATTGTTGATCAGCTGTGACCCAAATCTTCAGGTGTTCAATGTTTTTC  
ATTGATAACCTCGATACTCGTCTTCCCGAATAGCATTGTTTTCCACAAGAACCATAAAT  
GCTGGAGAAGAGCTGACTTTTGATTATCAATGAAAGTTCTGGAGATATATCTTCAGAT  
TCTATTGACCACAGCCCAGCCAAAAGAGGGTCAGAACAGTATGTAATGTGGAGCTGTG  
ACTTGCAGAGGTTACCTCAACTGAACTTTTTTCAGGAAATAGAGCTGATGATTATAATATT  
TTTTTCTAATGTTAACATTTTTAAAAATACATATTTGGGACTCTTATTATCAAGTTCT  
ACCTATGTTAATTTACAATTCATGTTTCAAGACATTTGCCAAATGTATTACCGATGCCTC  
TGAAAAGGGGTCCTGAGTCTCATAGACTGATATGAAGTCGACATATTTATAGTGCTTA  
GAGACCAACTAATGGAAGGCAGACTATTTACAGCTTAGTATATGTGACTTAAGTCTAT



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GTGAACAGAGAAATGCCTCCCCTAGTGTGGTAAAGCGTTAAGCTGATAATGTAATTAACA  
 ACTGCTGAGAGATCAAAGATTCAACTTGCCATACACCTCAAATTCGGAGAAAACAGTTAAT  
 TTGGGCAAATCTACAGTTCTGTTTTGCTACTCTATTGTCATTCTGTTAATACTCACT  
 GTACTTGTATTTGAGACAAAAGGTGATACTGAATTTTATACTGTTTTCTACTTTTCCAT  
 TAAAACATTGGCACCTCAATGATAAAGAAATTAAGGTATAAAATTAATGTAATAATTA  
 ATTTGAGTTTCAATTCGTATTTGGAAGCAATCTAGACTGTTGTGATGAGTGTATGTCTGA  
 ACCTGTAATTTCTAAAAGACTTCTTAATCTTCTAGAAGAAAAATCTCCGAAGAGCTCTCT  
 CTAGAAGTCCAAAATGGCTAGCCATTATGCTTCTTTGAAAGGACATGATAATGGGACCAG  
 GATGGTTTTTTGGAGTACCAAGCAAGGGGAATGGAGCACTTTAAGGGCGCCTGTTAGTAA  
 CATGAATTGGAATCTGTGTCGAGTACCTCTGATCTAAACGGTAAAAACAAGCTGCCTGGA  
 GAGCAGCTGTACCTAACAACTACTGTAATGTACATTAACATTACAGCCTCTCAATTCAGG  
 CAGGTGTAACAGTTCTTTCCACCAGATTTAATATTTTTATACTTCTGCAGGTTCTTCT  
 TAAAAAGTAATCTATATTTTTGAACTGATACTTGTTTTATACATAAATTTTTTTTAGATG  
 TGATAAAGCTAAACTTGGCCAAAGTGTGTCCTGAATTATTAGACCTTTTTATTAGTCAA  
 CCTACGAAGACTAAAATAGAATATATTAGTTTTCAAGGGAGTGGGAGGCTTCCAACATAG  
 TATTGAATCTCAGAAAAACTATTCTTTTATGTCTGATTCTGAGATTTCTAATTGTGTTG  
 TGAATGATAAATGCAGCAAACTAGCTTTCAGTATTCCTAATTTTTACCTAAGCTCAT  
 TGCTCCAGGCTTTGATTACCTAAAATAAGCTTGGATAAAATTGAACCAACTTCAAGAATG  
 CAGCACTTCTTAATCTTTAGCTCTTTCTTGGGAGAAGCTAGACTTTATTCATTATATTGC  
 TATGACAACTTCACTCTTTCATAATATATAGGATAAAATGTTTACATGATTGGACCCTCA  
 GATTCTGTTAACCAAAAATGTCAGAAATGGGGGCCAGGCTGTGTGGTGGCTCACACCTGT  
 GATCCCAGCACTTTGGGAGGCTGAGGTAGGAGGATCACGTGAGGTGCGGAGTTCAAGACC  
 AGCCTGGCCATCATGGTAAACCCTGTCTCTACTGAAAAACAAAAATAGCCGGGCGTG  
 GTGGCACACGCTGTAGTCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAATT  
 CAGGAGGCGGAGGTTGCAGTGAAGCAAGATCATACCCTGCACTGCAGCCTGAGTGACAC  
 AGTAAGACTGTCTCCAAAAAAAAAAAAAAAAA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_024670 unedited  
 NNCCGTTTCAAGTTTGTAAATACGACTCACTATAGGNCGGACCGNAATTCGGCAGGAG  
 GGGGGCCGAGGCGGAGGAGGTGAGGCTGGAGCGCGGCCCTCGCCTTCCCTGTTCCC  
 AGGCAAGCTCCCAAGGCCCGGGCGGGGCGTCCCGCGGCCAGCCAGATGGCAGCT  
 GCGGTTCCCGCCCGCGCACCCAACTCCGGGACGCACGCTGCGGACGCCTATCCTC  
 CCCCAGGCGCTGACCCGCTCCCTGCCGCGCGGCTCCCGCGGAGGATATGGAATA  
 TTATCTTGTAATAAGGAAAGGATGGCCAGATTCTACAAACTTTGGGAACCTTTGCAAAA  
 TCTGAAGTGGCCGTTACTGCTTCAAGCAATTTCTAATGACAAGCATAATTATTTATCTCA  
 GGTAAAGAAAGGCAAGCAATAACTCCAAAAGACAATAACAAAACCTTTGAAACCTGCCAT  
 TGCTGAGTACATTGTGAAGAAGGCTAAACAAAGGATAGCTCTGCAGAGATGGCAAGATGA  
 ACTCAACAGAAGAAAGAAATCATAAAGGAATGATATTTGTTGAAAATACTGTTGATTTAGA  
 GGGCCACCTTCAAGACTTCTATTACATTAACGAATACAAACCAGCTCCTGGAATCAGCTT  
 AGTCAATGAAGCTACCTTTGGTTGTTTATGCACAGATTGCTTCTTTCAAAAATGTTGTCC  
 TGCTGAAGCTGGAGTTCTTTGGCTTATAATAAAAACCAANCAATTAATCCCACCTGG  
 TACTCCATCTATGAATGCAACTCAAGGTGTCAGTGTGGTCTGATTGTCCCATAGGATT  
 GTACAAAAGGCACACAGTATTGCTTTGCATCTTTGAACTAGCAATGGACGTGGCTGGG  
 GTGTAAGACCCCG

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_024670

**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).

<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>	<u><a href="#">NM_024670.3</a></u> , <u><a href="#">NP_078946.1</a></u>
<b>RefSeq Size:</b>	3093 bp
<b>RefSeq ORF:</b>	1053 bp
<b>Locus ID:</b>	79723
<b>UniProt ID:</b>	<u><a href="#">Q9H5I1</a></u>
<b>Cytogenetics:</b>	10p13
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Lysine degradation
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (3) contains an alternate 5' terminal exon, and is missing the subsequent 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.</p>