

Product datasheet for RC231011

SUV39H2 (NM_001193427) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SUV39H2 (NM_001193427) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: SUV39H2
Synonyms: KMT1B
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC231011 representing NM_001193427
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAATATTATCTTGAAAATGGAAAGGATGGCCAGATTCTACAATACTTGGGAACCTTTGCAAATC
TGAAGTCCCCTTACTGCTTCAGCAATTCTAATGACAAGCATAATTATTTATCTCAGGTAATCACAAG
TGAAGAAGCTGAAAGACGAGGACAGTTCTATGACAACAAGGGAATCACGTATCTCTTTGATCTGGACTAT
GAGTCTGATGAATTCACAGTGGATGCGGCTCGATACGGCAATGTGTCTCATTTTGTGAATCACAGCTGTG
ACCCAAATCTTCAGGTGTTCAATGTTTTTCATTGATAACCTCGATACTCGTCTTCCCCGAATAGCATTGTT
TTCCACAAGAACCATAAATGCTGGAGAAGAGCTGACTTTTGATTCAAATGAAAGGTTCTGGAGATATA
TCTTCAGATTCTATTGACCACAGCCCAGCCAAAAGAGGGTCAGAACAGTATGTAATGTGGAGCTGTGA
CTTGCAGAGGTTACCTCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC231011 representing NM_001193427
Red=Cloning site Green=Tags(s)

MEYYLVKWKGWPDSTNTWEPLQNLKCPLLLQQFSNDKHNYSQVITSEEAEERRGQFYDNKGITYLFDLDY
ESDEFTVDAARYGNVSHFVNHSCLPNLQVFNVFIDNLDTRLPRIALFSTRINAGEELTFDYQMKGSGDI
SSDSIDHSPAKKRVRTVCKGAVTCRGYLN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

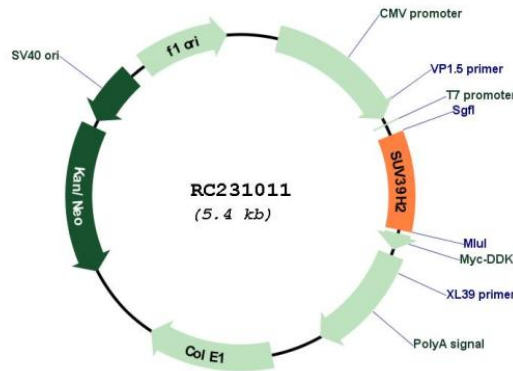
Restriction Sites: SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_001193427

ORF Size: 510 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:	<u>NM_001193427.1</u> , <u>NP_001180356.1</u>
RefSeq ORF:	513 bp
Locus ID:	79723
UniProt ID:	<u>Q9H5I1</u>
Cytogenetics:	10p13
Protein Families:	Druggable Genome
Protein Pathways:	Lysine degradation
MW:	20.1 kDa
Gene Summary:	<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>