

Product datasheet for **RG214996**

hSET1 (SETD1A) (NM_014712) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	hSET1 (SETD1A) (NM_014712) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SETD1A
Synonyms:	EPEDD; KMT2F; NEDSID; Set1; Set1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214996 representing NM_014712 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCAGGAAGGTGGGGGAGATGGGCAGAAGGCCCGAGCTTCCAGTGGCGGAACTACAAGTCATCG
TGGATCCTGCCTTGGACCCTGCCCTGCGCAGGCCCTTCTCAGAAGGTGTACCGCTATGATGGAGTCCACTT
CAGTGTCAACGACTCAAAGTATATACCAGTCAAGACCTCAAGACCCCCGTTGCCATGTCAGGTCCAAA
AACAGAGACTTTCCCTCCAGTCCCTAAGTTAAGCTGGACGAGTTCTATATTGGACAGATTCCACTGA
AGGAAGTGACTTTTGAAGGCTGAATGACAACGTGCGGGAGACCTTCTGAAGGATATGTGCCGTAAGTA
CGGTGAGGTGGAAGAGGTAGAGATCCTCCTTACCCCCGTACGCGCAAGCACCTGGGCCTGGCCCGTGTG
CTTCCACCAGCACTCGGGGCGCAAGGAAACGGTCAAAAACCTCCACCTTACCTCCGTCATGGGCAACA
TCATCCATGCCAGCTTGACATCAAAGGACAACAACGAATGAAATACTATGAACTAATTGTCAATGGCTC
CTACACCCTCAGACTGTGCCACTGGGGCAAGGCCCTGAGTGAGAAGTCCAAGGCTCGGGTGCAGCC
ACTGAGACGGCCGAATCCCGCCGCGCTTCTCTGACACAGCTGCCTACCCAGCAGGCACCACTGCGG
TGGCACTCCTGGCAACGGCACCCCTGCTCCAGGACACAAGCTTCTCCAGCAGCCGACAAGATAACCC
ATCTTCTTTGGCCAGTTCACACCTCAGTCTCCCAAGGAACCCCTACACGCTCTCGGGGAGCACCCCT
TACTCTCAGGACTCTGCCTACTCCAGCAGCACCCTTCAACCTCCTTCAAGCCCCGGCGTCCAGAGAACA
GCTACCAAGATGCCTTTCCCGCCGCACTTCTCTGCATCTTACGCTCCACAACCCCTCCACGGCCAT
CGCCGCCACCACTGCAGCACTGCCTCATCCTCCGCTTCTCTCCTCATTGTCTCGTCTCCTCGTCA
TCCTTCTCCTCCTCGTCTCTCAGTTTCGATGTTCTGATGCAAACCTACCCAGCGTATTATGAAAGCTGGA
ATCGCTACCAGCGCCATACTTCTACCCACCACGCGGGCCACACGGGAGGAACCCCTGGAGCCCTTT
TGCTGAAAATACAGCTGAGCGCTTCCACCTTCTTACACCTCCTACCTGCCCCCGAGCCAGCCGGCCC
ACCGACCAGGACTACCGCCTCCTGCCTCAGAGGCTCCACCCCGGAGCCTCCAGAACCTGGTGGAGGCG
GGGTGGAGGAGGCCAGCCCTGAGAGAGAAGAAGTTCGGACTTCCCCCGCCAGCCTCCCTGCCCG
CTCTGGCTCCCCAGCCCGGAGACCACCAATGAGAGTGTGCCCTTCGCCAGCACAGCAGCTGGATTCC



View online »

CGCATCGAGATGCTGCTGAAGGAGCAGCGCTCCAAGTTTTCTTCTTGGCCTCTGACACAGAGGAGGAGG
AAGAGAACAGCAGCATGGTCTTGGGGCCAGAGATACAGGGAGTGAGGTGCCTTCTGGGTGAGGGCATGG
GCCCTGCACACCCCTCCGGCCAGCTAATTTGAGGATGTGGCACCTACAGGGAGCGGGGAGCCAGGG
GCTACCCGGGAGTCTCCAAGGCAAATGGACAGAAACCAGGCTTCTCCATGCTCTTCTGGAGACGACATGG
AGATCTCCGACGACGACCCGGGTGGTCCACCCCTCCGGCCCGACGCCCCCTCAGCAGCCTCCGCCACC
TCCCCCTCCCCCGCCCTCTCCTCCTACCTGGCGTCCCTTCTTGGTTATCTCCCACCAACCT
GCCTACCTCCTCCACCCAGACCTGATGGGCCCGCCCGCCCTGAGTACCCCCACCTCCACCCACCC
CGCACATCTATGACTTTGTGAACCTCTTGGAGCTCATGGACCGACTTGGGGCTCAGTGGGAGGGATGCC
CATGTCTTCCAGATGCAGACCCAGATGTTAACTCGGCTCCATCAGCTGCGGCAGGGCAAGGGATTGATT
GCCGCTCAGCTGGCCCCCGGTGGGGCTTTGGGGAGGCCTTCTCCCGTTTCCACCCCGCAGGAGG
CAGCCTACGGCTTGCCTATGCTCTATATGCACAGGGGCAGGAGGGCAGAGGGGCATACTCACGGGAGGC
CTACCACCTGCCATGCCAATGGCAGCCGAGCCCTGCCCTCCTCCTCAGTCTCGGGAGAGGAGGCCCGG
CTGCCACCCAGGGAAGAAGCAGAGCTGGCAGAGGGCAAGACCCTCCGACAGCAGGCACCGTGGGCCGTG
TGCTCGCCATGCTGGTCCAGGAGATGAAGAGCATCATGCAGCGAGACCTCAACCGCAAGATGGTGGAGAA
CGTGGCCTTCGGAGCCTTTGACCAGTGGTGGGAGAGCAAGGAGGAGAAGGCCAAGCCATTCCAGAACCGG
GCCAAGCAGCAAGCAAGGAGGAGGATAAAGAGAAGACGAAGCTGAAGGAGCCTGGCCTGCCTGCCCTCG
TGGACTGGGCAAGAGCGGGGGCACTACGGGCATCGAGGCTTTCGCCCTTGGGTGAGGGCTGAGAGGGGC
CCTGCGGCTGCCTTCAATTCAAGTAAAGCGAAAGAGCCATCGGAAATTTCCGAGGCCAGTGAAGAAAAG
AGGCCTCGTCCCTCCACTCCTGCTGAGGAAGATGAAGACGACCCTGAACAAGAGAAGGAGGCTGGAGAGC
CAGGACGTCCGGGGACCAAGCCCCGAAGCGGGACGAAGAGCGAGGCAAGACCCAGGGCAAGCACCAGCA
GTCCTTTGCTCTGGACAGCAAGGGGAGGAGGCATCCCAGGAGTCTCCTCGGAGAAGGATGAGGAGGAT
GACGAGGAAGATGAGGAAGATGAAGATCGAGAGGAAGCTGTGGATACCACAAAGAAGGACAGAGGATGT
TGATGGCGAGGACGAGGAAAGCGATTCTTCCAAATGTTCTGTATGCTGACTCAGATCAGATGCGAAAA
TGACAGCACATCAGACTCCGAGAGCAGCAGCTTCCAGCTCCTCATCCTCCTCCTCCTCGTCTCCTCA
TCCTCCTCGTCTTTCATCCTCTGAGTCTCCTGAAGATGAAGAGGAAGAGGAGCGGCCAGCAGCC
TTCCTCAGCCTCCCGCCCCCAGAGAAGTCCCAGTGCCACGCCAGCACCTGTGGAGGTGCCAGTGCC
GGAAAGGGTTGCAGGCTCCCGAGTACACCCCTGCCCGAACAGGAGGCGTCTCCAGCAAGGCCTGCAGGC
CCCACGGAGGAGTACCCCCAGTGCCTCTGCGTCCCCCAGAACCTGTGGGCCCCCGGCCCTG
CCCCACGCCCGATGAGCGTCCCTTCTCCATCCCCCTCCTGCCCCACCCAAGAACGCCGAAAAAC
TGTCTCCTTCTGCCATCGAGGTGGTCCAGCCCGGAGCCCCCTCCAGCCACACCGCCGAGGCCAAG
TTTCCCGCCAGCCTCCCGAAGGCTCCCGGGGCGTGGAGCGGACCATCCGCAACCTGCCCTGGACC
ACGCATCTCTGGTCAAGAGTTGGCCGAGGAGGTGTCCGAGGAGGCCGAGCCGGGCTGGAGGCCGAGG
CCGCTCACCGAGGAAGAGGAGGCTGAGCCAGGGACAGAGGTGGACCTGGCGGTCTGGCCGACCTGGCC
CTGACCCCTGCCCGCGCGGGTGCCTGCCCTGCCTGCTGTTGAAGACTCAGAGGCCACAGAGACATCGG
ACGAGGGCCGAGCGCCCTAGGCCCTGCTCAGCCACATCCTCCTGGAGCACAATAAGCCCTGGCCGTC
GCCACGCCCCCTGCGCCAGCCCTGCGGCCCGGAGCCAGTGCCCGACCCGCGCCCTTTCAGTTCC
CCAGCTGATGAGGTCTGGAGGCCCCGAGGTGGTGGTGGCTGAGGCGGAGGAGCCCAAGCCGACGAA
TGCAGCAGCAGCGGAGGAGGGCGAAGAGGAGGGGAGGAAGAGGGGAGGAAGAGGAGGAGGAGTCTCCT
TGACAGCAGCAGCAGCAGCGATGGGAGGGCGCCCTCCGGAGGCGCAGCCTCCGCTCCACGCCCGGCG
CGCCGCCCTCCGCCCCACCCCGCCGCCACCGCCCGCCCTACGAGCCACGCAAGTGGTTGAACAGA
TGACCATCCTGTATGACATTTGGAACCTCGGCCTGGACTCAGAGGACATGAGTTACCTGCGGCTTACGTA
CGAGCGGTGCTGCAGCAGACAAGCGGGGCTGACTGGCTCAACGACACTCACTGGGTCCATCACACAATC
ACCAACCTGACCACCCAAAACGCAAGCGGGCGGCCCCAGGATGGGCCCGGGAGCACCAGACAGGCTCAG
CCCGCAGCGAAGGCTACTACCCATCAGCAAGAAGGAGAAGGACAAGTACCTGGAGCTGTGCCAGTCTC
GGCCCGGAGCTGGAGGGCGTGGACACTCAGGGGACGAACCGGTGCTGTCCGAGCGCCGGTCCGAGCAG
CGGCGGTGCTGAGCGCCATCGTACCTCCGCCATCATGGACAGTACCTGCTGAAACTCAACCAGTCA
AGTCCCGAAGAAGAAGCTCCGATTTGGCCGAGCCGGATCCACGAGTGGGTCTGTTTCCATGGAACC
CATTGCTGCTGACGAGATGGTATCGAATACGTGGGTGAGAATCCGTCAGATGGTGGCCGACATGCGG
GAGAAGCGCTACGTGCAGGAGGGCATTGGCAGCAGCTACCTGTTCCGGGTGGACCACGACACCATCATCG
ATGCCACCAAGTGTGGCAACCTGGCCAGATTATCAACCACTGCTGCACGCCTAACTGCTACGCCAAGGT
CATCCACATCGAGTCCCGAAGAAGATCGTGATCTACTCAAGCAGCCATTGGCGTGGACGAGGAGATC
ACCTACGACTACAAGTCCCCTGGAAGACAACAAGATCCCGTGTCTGTGTGGCAGAGAGCTGCCGGG

GCTCCCTAAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG214996 representing NM_014712

Red=Cloning site Green=Tags(s)

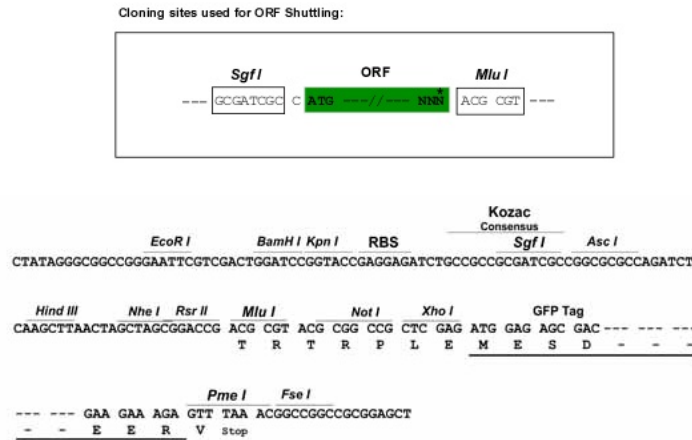
MDQEGGGDGQKAPSFQWRNYKLI VDPALD PALRRPSQKVYRYDGVHFSVNSDKYIPVEDLQDPRCHVRSK
 NRDFSLPVPKFKLDEFYIGQIPLKEVTFARLNDNVRETF LKDMCRKYGEVEEVEILLHPRTRKHLGLARV
 LFTSTRGAKETVKNLHLT SVMGNI IHAQLDIKGGQRMKYELIVNGSYTPQTVP TGGKALSEKFQGGGAA
 TETAESRRRSSSDTAAYPAGTTAVGTPGNGTPCSQDTSFSSSRQDTPSSFGQFTPQSSQGTPTYSRGSTP
 YSQDSAYSSTTSTSFKPRRSSENSYQDAFSRRHF SASSASTTASTAIAATTAATASSASSSSSSSSSSSS
 SSSSSSSQFRSSDANYPAYYESWNRYQRHTSYPPRRATREPPGAPFAENTAERFPPSYTSYLPPEPSRP
 TDQDYRPPASEAPPPPEPPGPGGGGGGSPEREVRTSPRPASPARSGSPAPETTNE SVPFQAQHSLLDS
 RIEMLLKEQRSKFSFLASDTEEEENSSMVLGARDTGSEVPSGSGHGPCTPPPAPANFEDVAPTGSSEPG
 ATRESPKANGQNQASPCSSGDDMEISDDDRGGSPPPAPTTPPQQPPPPPPPPPPPPPYLASLPLGYPPHQ
 AYLLPPRPDGPPEYPPPPPPPHIYDFVNSLELMDRLGAQWGGMPMSFQMOTQMLTRLHLRQKGLI
 AASAGPPGGAFGEAFLFPFPPEAAAYGLPYALYAQQQEGRGAYSREAYHLPMPMAAEPLSSSVSGEEAR
 LPPREEAELAEKTLPTAGTVGRVLAMLVQEMKSIMQRDLNRKMVENVAFGAFDQWWEKKEEKAKPFQNA
 AKQQAKEEDKEKTKLKEPGLLSLVDWAKSGGTTGIEAFAGSGLRGALRLPSFKVKRKEPSEISEASEEK
 RPRPSTPAEEDDDPEQEKEAGEPGRPGTKPKRDEERGKTQGKHRKSFALDSEGEEASQESSEKDEED
 DEEDEDEDREEAVDTTKETEVS DGEDEESDSSSKCSLYADSDGENDSTSDSESSSSSSSSSSSSSSSS
 SSSSSSSSESSSEDEEEERPAALPSASPPPREVPVPTAPVEVPVPERVAGSPVPLPEQEASPARPAG
 PTEESPPSAPLRPPEPPAGPPAPAPRPDERSSPIPLLPPPKRRKTVSFS AIEVVPAPPEPPATPPQAK
 FPGPASRKAPRGVERTIRNLPLDHASLVKSWPEEVSRRGGRSAGGRGRLTEEEEAEPGTEVDLAVLADLA
 LTPARRGLPALPAVEDSEATETSDEAERPRLLSHILLEHNYALAVKPTPPAPALRPPEVPAPAALFSS
 PADEVLEAPEVVVAEAEPEKQQQLQQQREEGEEGEEGEEGEESSDSSSSSDGEGALRRRSLRSHARR
 RRPPPPPPPPPRAYEPRSEFEQMTILYDIWNSGLDSEDMSYLRLTYERLLQQTSGADWLN DTHWHHTI
 TNLTPKRKRPPQDGPREHQ TGSARSEGYPI SKKEKDKYLDVCPVSARQLEGVDTQGTNRVLSERRSEQ
 RRLLSAIGTSAIMSDLLKLNQLKFRKKLRFGRSRIHEWGLFAMEPIAADEMVI EYVQNIQMVADMR
 EKRYVQEGIGSSYLFRVDHDTIIDATKCGNLARFINHCCTPNCYAKVITIESQKKI VIYSKQPIGVDEEI
 TYDYKFPLEDNKIPCLCGTESCRGSLN

TRTRPLE - GFP Tag - V

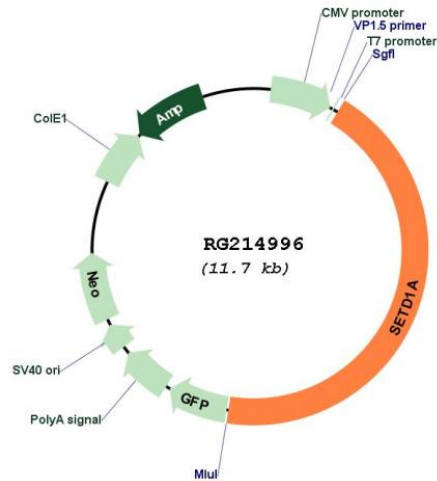
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_014712

ORF Size: 5121 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:

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_014712.3](#)

RefSeq Size: 6447 bp

RefSeq ORF: 5124 bp

Locus ID: 9739

UniProt ID: [O15047](#)

Cytogenetics: 16p11.2

Protein Families: Druggable Genome

Protein Pathways: Lysine degradation

Gene Summary: The protein encoded by this gene is a component of a histone methyltransferase (HMT) complex that produces mono-, di-, and trimethylated histone H3 at Lys4. Trimethylation of histone H3 at lysine 4 (H3K4me3) is a chromatin modification known to generally mark the transcription start sites of active genes. The protein contains SET domains, a RNA recognition motif domain and is a member of the class V-like SAM-binding methyltransferase superfamily. [provided by RefSeq, Dec 2016]