

Product datasheet for RC219244

SETD7 (NM_030648) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SETD7 (NM_030648) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SETD7
Synonyms:	KMT7; SET7; SET7/9; SET9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219244 representing NM_030648 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATAGCGACGACGAGATGGTGGAGGAGGCGGTGGAAGGGCACCTGGACGATGACGGATTACCGCACG
GGTTCTGCACAGTCACCTACTCCTCCACAGACAGATTTGAGGGGAACCTTGTTCACGGAGAAAAGAACGG
ACGGGGGAAGTTCTTCTTTGATGGCAGCACCTGGAGGGTATTATGTGGATGATGCCTTCAGGGC
CAGGGAGTTTACACTTACGAAGATGGGGAGTTCTCCAGGGCACGTATGTAGACGGAGAGCTGAACGGTC
CAGCCCAGGAATATGACACAGATGGGAGACTGATCTTCAAGGGCAGTATAAAGATAACATTCGTCATGG
AGTGTGCTGGATATATTACCCAGATGGAGGAAGCCTTGTAGGAGAAGTAAATGAAGATGGGAGATGACT
GGAGAGAAGATAGCCTATGTGTACCCTGATGAGAGGACCGCACTTATGGGAAATTTATTGATGGAGAGA
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AAATTCAGTGTACCCTTTGATAAGTCGACTTCATCTTGCACTTCACTCAATGCTCTTCTCCAGATCCT
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CAGGGACTGGGCCCTTAATGGGAACACCCTCTCCCTTGATGAAGAAACGGTCATTGATGTGCCTGAGCCC
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CGATGAAGAGCTCACCGTTGCCTATGGCTATGACCACAGCCCCCGGGAAGAGTGGGCCTGAAGCCCT
GAGTGGTACCAGGTGGAGCTGAAGGCCTTCCAGGCCACCCAGCAAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC219244 representing NM_030648
Red=Cloning site Green=Tags(s)

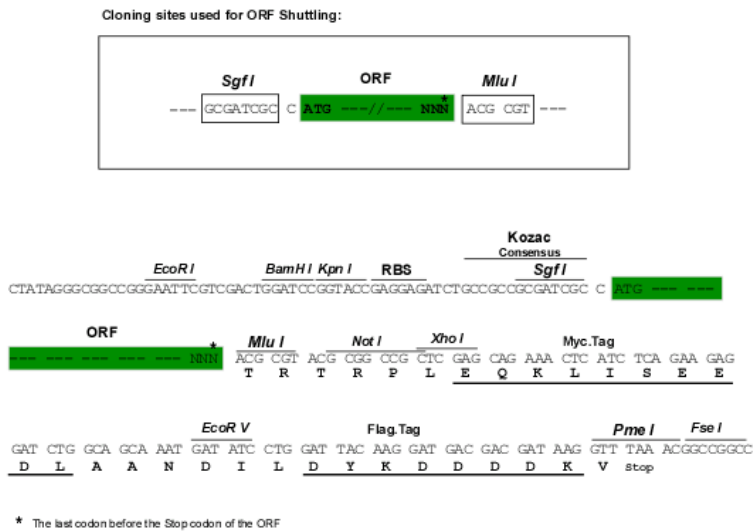
MDSDDEMVEEAVEGHLDDDGPHGFCTVTYSSTDRFEGNFVHGEKNGRGKFFFDGSTLEGYYVDDALQG
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 YESERVVVAESL ISSAGEGLFSKVAVGPNTVMSFYNGVRITHQEVDSRDWALNGNTLSLDEETVIDVPEP
 YNHVSKYCASLGHKANHSFTPNCIYDMFVHPRFGPIKCIRTLRAVEADEELTVAYGYDHSPPGKSGPEAP
 EWYQVELKAFQATQQK

TRTRPLEQKLISEEDLAANDILDYKDDDDKVK

Chromatograms: https://cdn.origene.com/chromatograms/mk6111_h10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_030648

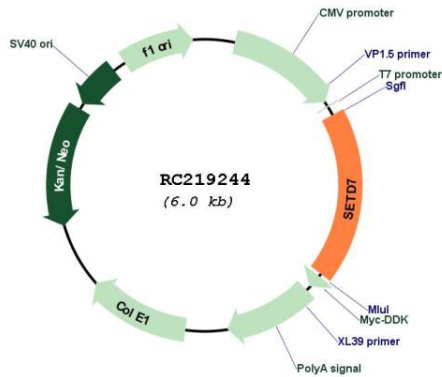
ORF Size: 1098 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

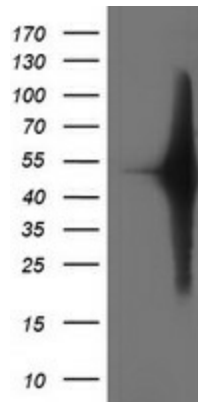
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_030648.3
RefSeq Size:	7012 bp
RefSeq ORF:	1101 bp
Locus ID:	80854
UniProt ID:	Q8WTS6
Cytogenetics:	4q31.1
Domains:	SET, MORN
Protein Families:	Druggable Genome
Protein Pathways:	Lysine degradation
MW:	40.5 kDa
Gene Summary:	Histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. Plays a central role in the transcriptional activation of genes such as collagenase or insulin. Recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription. Has also methyltransferase activity toward non-histone proteins such as p53/TP53, TAF10, and possibly TAF7 by recognizing and binding the [KR]-[STA]-K in substrate proteins. Monomethylates 'Lys-189' of TAF10, leading to increase the affinity of TAF10 for RNA polymerase II. Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation.[UniProtKB/Swiss-Prot Function]

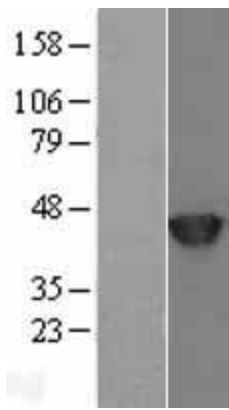
Product images:



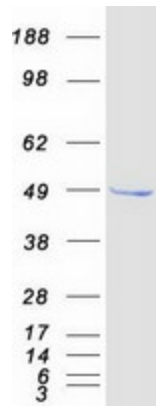
Circular map for RC219244



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SETD7 (Cat# RC219244, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SETD7 (Cat# [TA503322]). Positive lysates [LY403067] (100ug) and [LC403067] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403067]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219244 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SETD7 protein (Cat# [TP319244]). The protein was produced from HEK293T cells transfected with SETD7 cDNA clone (Cat# RC219244) using MegaTran 2.0 (Cat# [TT210002]).