

Product datasheet for MR222625

Ehmt2 (NM_147151) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ehmt2 (NM_147151) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Ehmt2
Synonyms: Bat8; D17Ert710e; G9a; KMT1C; NG36
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR222625 representing NM_147151
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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ATGGCGGGCGGGGAGCTGCTGCGGGCGGGCCGAGGGGGAGGCCCCCGCTGAGATGGGGGCGC
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 TGAGGAGACCCCTCCCAAGGCCAACCCGACTCCTTGGAGCCTGCCGGCCCTCTCTCCGGCCTGTGC
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 AGAGCCTGGAGGAGATGGGGTTCGCATCGTGTGGCCATGCCACAAAGTCGTTCCCTCTTCCCCAG
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ATGGGGGAACACCCCAATTGGCACCGCAGCTCCTGCTCTGCCACCCCTGGCACATGATGCCCCAGGGCG
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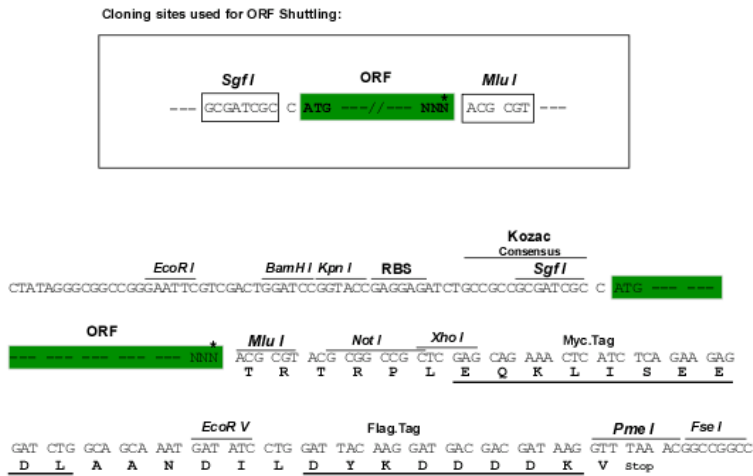
Protein Sequence: >MR222625 representing NM_147151
 Red=Cloning site Green=Tags(s)

MAAAAGAAAAAEEGEAPAEMGALLLEKEPRGAAERVHSSLGDTQPQSEETLPKANPDSLEPAGPSSPASV
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 MLLDNLDPNFQSDQQSKRTPLHAAAQKGSVEICHVLLQAGANINAVDKQQRTPLEAVVNNHLEVARYMV
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 ADVTLTDNEENICLHWASFTGSAATAEVLLNAQCDLHAVNYHGDTPHIAARES YHDCVLLFLSRGANPE
 LRNKEGDTAWDLTPERSDVWFALQLNRKRLR LGVGNRAVRTEKIIICRDVARGYENVPIPCVNGVDGEPCE
 DYKIYISENCETSTMNIDRNITHLQHTCVDDCSSNCLCGQLSIRCWYDKGRLLQEFNKIEPPLIFECN
 QACSCWRSCKNRVVQSGIKVRLQLYRTAKMGWGRALQTIPQGT FICEYV GELISDAEADVREDDSYLFD
 LDNKDGEVYCIDARYYGNISRFINHLCDPNII PVRVFMLHQDLRFPRIAFFSSRDIRTGEELGFYDGRF
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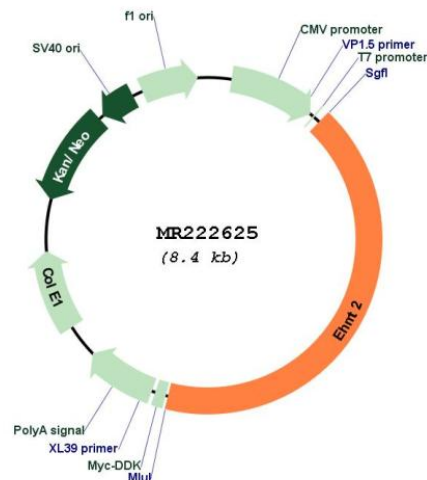
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_147151

ORF Size: 3516 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_147151.3](#)

RefSeq Size: 3757 bp

RefSeq ORF: 3519 bp

Locus ID: 110147

UniProt ID: [Q9Z148](#)

Cytogenetics: 17 18.45 cM

MW: 128.9 kDa

Gene Summary: Histone methyltransferase that specifically mono- and dimethylates 'Lys-9' of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin. H3K9me represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones. Also mediates monomethylation of 'Lys-56' of histone H3 (H3K56me1) in G1 phase, leading to promote interaction between histone H3 and PCNA and regulating DNA replication. Also weakly methylates 'Lys-27' of histone H3 (H3K27me). Also required for DNA methylation, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. May also methylate histone H1. In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53. Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself.[UniProtKB/Swiss-Prot Function]