

Product datasheet for MC224068

Ehmt1 (NM_001109687) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ehmt1 (NM_001109687) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ehmt1
Synonyms:	9230102N17Rik; D330003E03; Eu-HMTase1; GLP; GLP1; KMT1D; mKIAA1876
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224068 representing NM_001109687 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGCGCTGATGCTGAGCAGGCAGTTCTGGCCAAGCAAGAGACCAAGCAGGATTGCTGCATGAAAA
CTGAGCTGCTAAGGGAAGATACACCTATGGCTGCTGATGAAGTTCCACAGAGAAAACAAGAGGAGAGAC
TCCCATGGCTGCAGATGGAGAAAACAATGGGTCTTGTAAGAGAGTGGGGATCCCAGCCATCTAAATGCA
CCCAAACACACTCAGGAGAACACAAGAGCTAGCCACAGGAAGGCACCAACAGAGTGTCTCGGGTGGCAG
AAAATGGGGTTTCAGAAAGAGACACAGAAGTGGGGAAGCAAAAACCATGTCACAGCTGACGACTTCATGCA
GACATCTGTCAATTGGCAGCAATGGATATTTCTTAATAAACAGCCCTGCAGGGGAGCCGTTGAGGACT
CCCAACATTCTAACCTCCTCGCTTCTGGTTCATGCTGCAAAAACCTCTTCTGGAGGAGCCAGTAAATGCA
GGACTCTGAGTGCACCTCCTCAGACACCAACCACAGCACCCTGTGCCTGGGGAAGGGAGTGCAGACAC
AGAGGACAGAAAGCCTACAGCCTCGGGCACTGATGTCAGGGTTCACAGGGCAGCAAGACCATGCCGAAG
TCCATCTTGGGCCTGCATGCAGCCAGCAAAGACCATAGAGAAGTTCAAGACCATAAGGAACCAAAAAGAGG
ATATCAACAGAAACATTTCTGAATGTGGACGACAGCAGCTTTTACCAACCTTCCCAGCCCTCCACCAGT
GCTACCTCAGAATCAGTGTCTACATGGCCACCACAAAGTCCCAGACAGCTTGCTTGCTTTTGTTTTAGCA
GCTGCAGTATCTCGAAGAAAAACGAAGAATGGGAACCTATAGTTTAGTTCCCAAGAAAAAGACAAAAG
TATTAACACAGAGGACGGTGATTGAGATGTTTAAAGCATAAACCCATTCCACTGTGGGCGCAAGGGCGA
GAAAGCCTTAGATGATAGTGCCTGCATGTAATGGCGAGAGCTTGAGATGGACTCAGAAGATGAAGAC
TCCGATGAGCTGGAGGATGACGAGGACCATGGAGCTGAGCAAGCGGCTGCATTTCCCACCGAGGATAGTA
GGACTTCTAAAGAGAGCATGTCTGAGACTGACCGGGCTGCAAAGATGGATGGAGATTGAGAGGAGGAACA
GGAGTCTCCCGACACAGGGGAGGATGAAGATGGTGGAGACGAGTCTGACCTGAGTTCTGAATCCAGTATC
AAGAAGAAATTTCTCAAGAGGAGAGGGAAGACTGACAGCCCTGGATCAAACCTGCTCGGAAAAGGAGGC
GGAGAAGTAGAAAGAAGCCGAGCAGCATGCTTGGTTCCGAGGCTTGTAAAGTCATCTCCAGGAAGCATGGA
GCAGGCAGCTCTGGGAGACAGCGCTGGCTATATGGAAGTTTCCCTGGATTCCCTGGATCTCCGTGTGAGA
GGAATTCTGTCTCCAGACAGAAAATGAAGGGCTGGCCAGTGGTCCGGATGTGCTGGGACGGATGGCC



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TCCAGGAAGTGCCTCTCTGCAGCTGCCGAATGGAACCCCAAGAGCCGCGAGATCAGCACCTGGCCAA
 CAACCACTGCATGGCCACTGAGAGCGTGGATCACGAAGGTAACCTCATGGAATGCCAGCCTGAGAGCAGC
 ATCTCTCATCGTTTCATAAAGACTGTGCCTCTCGAGTCAACAATGCCAGCTACTGTCCCATTTGTGGG
 AAGAAGCTTCCAAGGCCAAAGAGGTGACCATAGCAAAAGCAGACACAACCTCCACAGTGACCCTAGCCCC
 TGGACAGGAGAAGAGCCTGGCTGCTGAAGGCAGGGCTGACACGACCACGGGCAGCATTGCTGGAGCCCCA
 GAGGATGAAAGATCGCAGAGCACAGCCCCCAGGCACCAGAGTGTTCGACCCCTGCCGGACCGGCTGGC
 TCGTGAGGCCGACATCTGGCCTTTCCAGGGCCAGGAAAGGAAACCTTGAAAGTGTCTAATCGCTCT
 AGACTCTGAAAAACCAAGAACTTCGCTTCCACCCAAAGCAGCTGTACTTCTCTGCCAGGCAGGGTGAG
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 GTTCCCATTTACATGCTGCTGCGGAGGCTGGCCACGTGGACATCTGCCACATGCTGGTTCAGGCGGGTGC
 CAATATTGACACTTGCTCAGAGGACCAGCGGACCCCACTGATGGAGGCTGCAGAGAACAACCACTTGGAT
 GCAGTGAAGTACCTCATCAAGGCTGGAGCACAGGTGGATCCGAAGGACGCAGAGGGCTCCACATGTTTGC
 ATTTGGCTGCCAAGAAAGGCCACTATGATGTGGTTCAGTATCTGCTTCAAATGGACAGATGGATGTCAA
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 CTGCTGTGTCTAAGGGCTCTGACATCAACATCCGGGACAACGAGGAGAACATTTGTCTGCACTGGGCAG
 CATTTTACAGGCTGTGTGGACATAGCTGAAATACTTCTGGCTGCCAAGTGTGACCTGCATGCTGTGAATAT
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 CGGGATTACAGTGTACTCTGAAAAACAAGGAAGGAGAGACTCCCTTGCAGTGTGCAAGTCTCAGTTCGC
 AGGTGTGGAGTGCATTGCAGATGAGCAAAGCACTTCGGGACTCAGCCCCTGACAAGCCCCTTGTGTTGA
 GAAGACGGTGAGCAGGGATATCGCTCGAGGGTATGAGCGCATTCCCATCCCTGTGTCAATGCTGTGGAC
 AGTGAGCTGTGCTACCAACTATAAGTATGTCTCCAGAAGTGTGTGACATCCCCATGAACATTGACA
 GGAACATCACTCATTTCAGTACTGCGTGTGTGTAGATGACTGCTCTAGCACCTGCATGTGTGGCCA
 CTTGAGCATGCGCTGCTGGTATGATAAGGATGGCCGACTTCTGCCTGAGTTTAAACATGGCAGAACCACCC
 TTGATCTTCGAGTGCAATCATGCCTGCTCATGCTGGAGGAACTGCCGCAATCGTGTGGTGCAAAATGGTC
 TCAGGGCAAGGCTGCAGCTTTATCGGACACAGGACATGGGCTGGGGTGTGCGGCTCCCTCCAGGATATCCC
 ACTGGGCACCTTTGTCTGCAATACGTAGGGGAGCTGATTTCCGACTCTGAAGCTGATGTTCCGGGAAGAG
 GACTCTTACCTCTTTGATCTTGACAATAAGGATGGAGAGGTATACTGCATTGACGCTCGGTTCTATGGGA
 ATGTCAGCCGGTTCATAAACCACCACTGCGAACCAACCTTGTGCTGTGCGAGTGTTCATGTCACACCA
 GGACCTGCGGTTCCAGGATTGCCTTCTCAGTACCCGCTGATTACGGCTGGGAGCAGCTCGGGTTC
 GACTACGGGAGCGCTTTTGGGACGTCAAGGGCAAGCTCTCAGTTGCCGGTGTGGGTCTCCAAGTGTG
 GCACTCAAGCGCAGCCCTGGCCAGAGGCAAGCCAGTGCAGCCAGGAGCCTCAGGAGAATGGCCTTCC
 AGATACCAGCTCTGCAGCCGCTGCTGACCCCTATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-MluI

ACCN:

NM_001109687

Insert Size:

3747 bp

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).

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_001109687.2](#), [NP_001103157.1](#)

RefSeq Size: 4963 bp

RefSeq ORF: 3747 bp

Locus ID: 77683

UniProt ID: [Q5DW34](#)

Cytogenetics: 2 A3

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 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. During G0 phase, it probably contributes to silencing of MYC- and E2F-responsive genes, suggesting a role in G0/G1 transition in cell cycle. In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53.[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (4) lacks an alternate in-frame exon, compared to variant 1. The encoded isoform (4) is shorter than isoform 1.