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Product datasheet for MC224031

Ehmt1 (NM_001109686) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ehmt1 (NM_001109686) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ehmt1
Synonyms:	9230102N17Rik; D330003E03; Eu-HMTase1; GLP; GLP1; KMT1D; mKIAA1876
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC224031 representing NM_001109686
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGCCGCTGATGCTGAGCAGGCAGTTCTGGCCAAGCAAGAGACCAAGCAGGATTGCTGCATGAAAA
CTGAGCTGCTAAGGGAAGATACACCTATGGCTGCTGATGAAGGTTCCACAGAGAAACAAGAAGGAGAGAC
TCCCATGGCTGCAGATGGAGAAACAAATGGGTCTTGTGAAAAGAGTGGGGATCCCAGCCATCTAAATGCA
CCCAAACACACTCAGGAGAACACAAGAGCTAGCCCACAGGAAGGCACCAACAGAGTGTCTCGGGTGGCAG
AAAATGGGGTTTCAGAAAGAGACACAGAAGTGGGGAAGCAAAACCATGTCACAGCTGACGACTTCATGCA
GACATCTGTCATTGGCAGCAATGGATATTTCTTAAATAAACCAGCCCTGCAGGGGCAGCCGTTGAGGACT
CCCAACATTCTAACCTCCTCGCTTCCTGGTCATGCTGCAAAAACTCTTCCTGGAGGAGCCAGTAAATGCA
GGACTCTGAGTGCACTTCCTCAGACACCAACCACAGCACCCACTGTGCCTGGGGAAGGGAGTGCAGACAC
AGAGGACAGAAAGCCTACAGCCTCGGGCACTGATGTCAGGGTTCACAGGGCACGCAAGACCATGCCGAAG
TCCATCTTGGGCCTGCATGCAGCCAGCAAAGACCATAGAGAAGTTCAAGACCATAAGGAACCAAAAGAGG
ATATCAACAGAAACATTTCTGAATGTGGACGACAGCAGCTTTTACCAACCTTCCCAGCCCTCCACCAGTC
GCTACCTCAGAATCAGTGCTACATGGCCACCACAAAGTCCCAGACAGCAGCTGCAGTATCTCGGAAGAAA
AAACGAAGAATGGGAACCTATAGTTTAGTTCCCAAGAAAAAGACCAAAGTATTAAAACAGAGGACGGTGA
TTGAGATGTTTAAAAGCATAACCCATTCCACTGTGGGCGCCAAGGGCGAGAAAGCCTTAGATGATAGTGC
CCTGCATGTAAATGGCGAGAGCTTGGAGATGGACTCAGAAGATGAAGACTCCGATGAGCTGGAGGATGAC
GAGGACCATGGAGCTGAGCAAGCGGCTGCATTTCCCACCGAGGATAGTAGGACTTCTAAAGAGAGCATGT
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GGATGAAGATGGTGGAGACGAGTCTGACCTGAGTTCTGAATCCAGTATCAAGAAGAAATTTCTCAAGAGG
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GCAGCATGCTTGGGCTGGCCAGTGGTCCGGATGTGCTGGGGACGGATGGCCTCCAGGAAGTGCCTCTCTG
CAGCTGCCGAATGGAAACCCCCAAGAGCCGCGAGATCAGCACCCTGGCCAACAACCAGTGCATGGCCACT
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GAGAGCGTGGATCACGAATTGGGCCGGTGTACAAACAGCGTGGTCAAGTATGAGCTGATGCGCCCATCCA
ACAAAGCACCGCTCTTGGTGTTATGTGAAGACCATCGGGGTCGCATGGTGAAGCACCAGTGCTGTCCTGG
CTGCGGCTACTTCTGCACGGCGGGTAACTTCATGGAATGCCAGCCTGAGAGCAGCATCTCTCATCGTTTC
CATAAGGACTGTGCCTCTCGAGTCAACAATGCCAGCTACTGTCCCCATTGTGGGGAAGAAGCTTCCAAGG
CCAAAGAGGTGACCATAGCAAAAGCAGACACAACTTCCACAGTGACCCTAGCCCCTGGACAGGAGAAGAG
CCTGGCTGCTGAAGGCAGGGCTGACACGACCACGGGCAGCATTGCTGGAGCCCCAGAGGATGAAAGATCG
CAGAGCACAGCCCCCCAGGCACCAGAGTGCTTCGACCCTGCCGGACCGGCTGGGCTCGTGAGGCCGACAT
CTGGCCTTTCCCAGGGCCCAGGAAAGGAAACCTTGGAAAGTGCTCTAATCGCTCTAGACTCTGAAAAACC
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CTCATGCTGGTTGATGGAATTGATCCCAACTTCAAAATGGAGCACCAAAGTAAGCGTTCCCCATTACATG
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TGGATGGACACCTATGATCTGGGCCACTGAGTACAAGCACGTGGAGCTGGTGAAGCTGCTGCTGTCTAAG
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TGGACATAGCTGAAATACTTCTGGCTGCCAAGTGTGACCTGCATGCTGTGAATATCCATGGAGACTCACC
CCTGCACATCGCAGCCAGGGAGAATCGCTACGACTGTGTTGTCCTCTTTCTTTCTCGGGATTCAGATGTT
ACTCTGAAAAACAAGGAAGGAGAGACTCCCTTGCAGTGTGCAAGTCTCAGTTCGCAGGTGTGGAGTGCAT
TGCAGATGAGCAAAGCACTTCGGGACTCAGCCCCTGACAAGCCCGTTGCTGTTGAGAAGACGGTGAGCAG
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ACCAACTATAAGTATGTCTCCCAGAACTGTGTGACATCCCCCATGAACATTGACAGGAACATCACTCATT
TGCAGTACTGCGTGTGTGTAGATGACTGCTCCTCTAGCACCTGCATGTGTGGCCAGCTGAGCATGCGCTG
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AATCATGCCTGCTCATGCTGGAGGAACTGCCGCAATCGTGTGGTGCAAAATGGTCTCAGGGCAAGGCTGC
AGCTTTATCGGACACAGGACATGGGCTGGGGTGTGCGGTCCCTCCAGGATATCCCACTGGGCACCTTTGT
CTGCGAATACGTAGGGGAGCTGATTTCGGACTCTGAAGCTGATGTTCGGGAAGAGGACTCTTACCTCTTT
GATCTTGACAATAAGGATGGAGAGGTATACTGCATTGACGCTCGGTTCTATGGGAATGTCAGCCGGTTCA
TAAACCACCACTGCGAACCCAACCTTGTGCCTGTGCGAGTGTTCATGTCACACCAGGACCTGCGGTTTCC
CAGGATTGCCTTCTTCAGTACCCGCCTGATTCAGGCTGGGGAGCAGCTCGGGTTCGACTACGGGGAGCGC
TTTTGGGACGTCAAGGGCAAGCTCTTCAGTTGCCGGTGTGGGTCTTCCAAGTGTCGGCACTCAAGCGCAG
CCCTGGCCCAGAGGCAAGCCAGTGCAGCCCAGGAGCCTCAGGAGAATGGCCTTCCAGATACCAGCTCTGC
AGCCGCTGCTGACCCCCTATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001109686

Insert Size: 3732 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).

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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_001109686.2, NP_001103156.1
RefSeq Size:	4948 bp
RefSeq ORF:	3732 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 (3) uses an alternate in-frame splice site and lacks an alternate in-frame exon, compared to variant 1. The encoded isoform (3) is shorter than isoform 1.

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