

Product datasheet for **MC229489**

Ehmt2 (NM_001286573) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ehmt2 (NM_001286573) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ehmt2
Synonyms: Bat8; D17Ert710e; G9a; KMT1C; NG36
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC229489 representing NM_001286573
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGGGTCTGCCGAGAGGGAGGGGGCTGATGCGGGCCCGGGGCGGGGGCTGCGGCCCCACGGCG
 GCCGCGCGCGGTTCGGGGGGCGCCACCGAGGGCGAGGTAGGCCCCGAAGCCTGCTCTCGCTGCCAG
 GGCCAGGCGTCTTGGGCCCCAGCTGCTGCCGGGTGACCGCCCCCGGTTCTTGTCTCCCTCC
 CAGGGGGAGGCCCGCTGAGATGGGGGCGCTGCTGCTGGAGAAGGAGCCCCGAGGAGCCCGAGAGAG
 TTCATAGCTCTTTGGGGACACCCCTCAGAGTGAGGAGACCCCTTCCCAAGGCCAACCCCGACTCCTTGA
 GCCTGCCGGCCCCCTCTCTCCGGCTCTGTCACTGTACCGTCGGCGATGAGGGGGTGACACCCCTGTC
 GGGGCCGATCACTCATCGGGGACGAACCCGAGAGCCTGGAGGGAGATGGGGTTCGATCGTGGGCC
 ATGCCACAAAGTCGTTCCCTCTTCCCCAGCAAGGGGGTGCCGTGCCAGTCGGGCCAAAATGTCAAT
 GACAGGGGCAGGAAAGTCGCCCCCTCGGTCCAGAGTTTGGCCATGAGGCTGTTGAGCATGCCGGGGCC
 CAGGGAGCTGCAACTGCTGGGCTGAACCCTCTCCGGCAACAACGCGCCAGGAGGGCAGCCCAAAG
 TGCACCGAGCCCGGAAAACCATGTCCAACCTAGCAACGGACAGCCTCCAATCCCTGAGAAGCGCCCC
 TGAAGTCCAGCATTTCCGCATGAGTGATGACATGATCTGGGGAAGGTGACTTCAGATGTGGCCAAAAG
 AGGAAGCTGAACTCTGGTAGCCTGTCCGAGGACTTGGGCTCTGCCGGGGCTCAGGAGATATAATCTGG
 AGAAGGGAGAGCCAGGCCCTGGAGGAGTGGGAGACGGTGGTGGCGATGACTTCAGCCTGACTATGA
 TGCGTACTCTGTGGATGAGCGGGTGGACTCTGACAGCAAGTCTGAAGTGAAGCTCTAGCTGAACAGTTG
 AGTGAGGAGGAGGAGGAGGAAGAGGAGGAAGAAGAAGAGGAGGAGGAGGAGGAAGAGGAGGAGGAGG
 AAGAAGAGGACGAGGAGTCCGGCAATCAGTCAGACAGGAGCGGTTCTAGTGGCCGCGCAAGGCCAAGAA
 GAAATGGCGGAAAGACAGCCGTGGGTGAAGCCATCTAGAAAACGGCGGAAACGAGACCTCCGAGGGCC
 AAGGAGCCAAGAGGGTCTCCAATGACACGTCTTCACTGGAGACAGAACGCGGGTTTGGAGAGCTGCCCC
 TCTGCAGCTGCCCATGGAGGCTCCAAGATTGACCGCATCAGCGAGAGAGCAGGGCACAAGTGCATGGC
 CACAGAGAGTGTGGATGGAGAGCTCCTGGGCTGCAATGCTGCCATCCTTAAGCGGGAGACCATGCGGCCG
 CTAGCCGCTGGCGCTGATGGTCTGTGAGGCCATCGAGCCCGCATGGTCAAGCACCATTGCTGCC



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CGGGCTGCGGCTACTTCTGCACAGCGGGCACCTTCTGGAATGCCACCCCGACTTTCGTGTAGCTCACCG
 CTTCCATAAGGCCTGCGTATCCCAGCTCAATGGGATGGTCTTCTGTCCCCACTGTGGAGAGGATGCCTCA
 GAGGCCAGGAGGTGACCATTCTCGGGGCGATGGGGGAACCCCAATTGGCACCCGAGCTCCTGCTC
 TGCCACCCTGGCACATGATGCCCCAGGGGAGCGGATACCTCCCAGCTAGCGCCCAATGCGAGGGCA
 TGGAGAGCCGCGGCGCCCGCCCTGTGATCCCCTGGCTGACACCATCGACAGCTCAGGGCCTTCACTGACT
 CTGCCTAATGGGGGTGCCTCTCCGCTGTGGGTCTGCCCCAGGGCCGGGAGGGAAGCCCTGAAAAAG
 CTTTGGTATCCAGGAGTCTGAGAGGCGGAAGAAGCTGCGATTCCACCCACGGCAGTGTACCTGTCCGT
 GAAGCAGGGGGAGCTGCAGAAGGTGATCCTTATGCTGTTAGACAACCTGGACCCCAACTCCAGAGCGAC
 CAGCAGAGCAAGCGCACGCCCTGCACGCGGCCCCAGAAAGGGTCTGGTGTAGAGTCTGTATGTCTGC
 TGCAGGCAGGAGCCAACATCAATGCCGTAGATAAGCAACAACGCACGCCACTAATGGAGGCCGTGGTAA
 CAACCACCTGGAGGTGGCAGCTACATGGTGCAGTTAGGTGGTGTGTCTACAGCAAGGAAGAGGATGGC
 TCCACCTGTCTACATCATGCAGCAAAATTGGAACTTGGAAATGGTCAAGCTGCTACTGAGCACAGGAC
 AGGTGGACGTCAATGCCAGGACAGTGGGGCTGGACGCCATCATCTGGGAGCCGAGCACAAGCACAT
 CGATGTGATTCTGATGCTGCTGACCCGGGTGCCGATGCACCCTGACTGACAATGAGGAAAACATCTGC
 CTGCACTGGGCTCCTTACGGGTAGTCCGCCATCGCTGAGGTCCTTCTGAATGCCAGTGTGATCTCC
 ATGCTGTCAACTACCATGGGGACAGCCCTGCACATAGCCGCCAGGGAGAGCTACCATGACTGTGTCT
 GTTGTTCCTGTCTCGTGGAGCAACCCTGAGCTTCGGAACAAAGAAGGAGACACGGCATGGGATCTGACC
 CCAGAGCGCTCTGATGTGTGGTTTGACTGCAGCTCAATCGAAAGCTTAGGCTTGGGGTAGGGAACCGGG
 CTGTCCGACCGAGAAGATCATCTGCCGGGACGTAGCCGAGGCTATGAGAATGTACCCATCCCCTGTGT
 CAATGGTGTGGATGGGGAGCCGTGCCGGGAGGACTACAAGTACATCTCTGAGAACTGCGAGACATCGACC
 ATGAACATCGACCGCAACATCACCCATCTGCAGCACTGCACGTGTGTGGATGACTGCTCCAGCTCCAATT
 GCCTATGTGGTCAGTCAAGTATCCGATGCTGGTATGACAAGGACGGGCGGCTGCTCCAGGAGTTTAAACA
 GATCGAGCCCCCTGATCTTTGAGTGTAAACAGGCATGCTCTGCTGGAGAAGCTGCAAGAACCAGCGTG
 GTGAGAGCGGCATCAAGGTACGGTGCAGCTCTACCGGACTGCCAAGATGGGCTGGGGGTCCGAGCCT
 TGCAGACCATCCCCAGGACGTTTCTGCGAGTATGTAGGAGAGCTGATCTGATGCCGAGGCTGA
 TGTGAGAGAGGATGATTCTTACCTCTTCGATTTAGATAACAAGGATGGCGAGTTTACTGCATTGATGCC
 CGTTACTATGGCAACATCAGCCGATTCTTAACCACCTGTGTGACCCCAACATCATCCCTGTCCGGGTTT
 TCATGCTGCACCAAGATCTACGGTTCACGCAATTGCCTTCTTCCAGCTCCAGGGACATCCGGACTGGGA
 GGAGCTGGGCTTTGACTACGGTGACCGATTCTGGGACATCAAGAGCAAGTATTTACCTGCCAGTGTGGC
 TCTGAGAAGTGAAGCATTACGCGGAGGCCATCGCCCTGGAGCAGAGCCGCTGGCCCGGCTGGACCC
 ACCCGGAGCTGCTCCCTGACCTCAGCTCCCTGCCCCCATCAACACCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_001286573
- Insert Size:** 3690 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).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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_001286573.1](#), [NP_001273502.1](#)

RefSeq Size: 3968 bp

RefSeq ORF: 3690 bp

Locus ID: 110147

UniProt ID: [Q9Z148](#)

Cytogenetics: 17 18.45 cM

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]

Transcript Variant: This variant (3) lacks an in-frame internal coding exon, compared to variant 1. The resulting isoform (c) lacks an internal segment, compared to isoform a.