OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC224113

Ehmt2 (NM_145830) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ehmt2 (NM_145830) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ehmt2
Synonyms:	Bat8; D17Ertd710e; G9a; KMT1C; NG36
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224113 representing NM_145830 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCGGGGTCTGCCGAGAGGGAGGGGGCTGATGCGGGCCCGGGGGCGGGGGCGTGCGGCCCCCACGGGCG GCCGCGGCCGCGGTCGGGGGGGCGCCCACCGAGGGCGAGGTAGGCCCCGAAGCCTGCTCTCGCTGCCCAG GGCCCAGGCGTCTTGGGCCCCCCAGCTGCCTGCCGGGCTGACCGGCCCCCCGGTTCCTTGTCTCCCCTCC CAGGGGGAGGCCCCCGCTGAGATGGGGGCGCTGCTGCTGGAGAAGGAGCCCCGAGGAGCCGCCGAGAGAG TTCATAGCTCTTTGGGGGACACCCCTCAGAGTGAGGAGACCCTTCCCAAGGCCAACCCCGACTCCTTGGA GCCTGCCGGCCCCTCCTCTCCGGCCTCTGTCACTGTCACCGTCGGCGATGAGGGGGCTGACACCCCTGTC GGGGCCGCATCACTCATCGGGGACGAACCCGAGAGCCTGGAGGGAGATGGGGGTCGCATCGTGCTGGGCC ATGCCACAAAGTCGTTCCCCTCTTCCCCCAGCAAGGGGGGTGCCTGTCCCAGTCGGGCCAAAATGTCAAT GACAGGGGCAGGAAAGTCGCCCCCCTCGGTCCAGAGTTTGGCCATGAGGCTGTTGAGCATGCCCGGGGCC CAGGGAGCTGCAACTGCTGGGCCTGAACCCTCTCCGGCAACAACTGCCGCCCAGGAGGGGCAGCCCAAAG TGCACCGAGCCCGGAAAACCATGTCCAAACCTAGCAACGGACAGCCTCCAATCCCTGAGAAGCGGCCCCC TGAAGTCCAGCATTTCCGCATGAGTGATGACATGCATCTGGGGAAGGTGACTTCAGATGTGGCCAAAAGG AGGAAGCTGAACTCTGGTAGCCTGTCCGAGGACTTGGGCTCTGCCGGGGGCTCAGGAGATATAATCCTGG AGAAGGGAGAGCCCAGGCCCCTGGAGGAGTGGGAGACGGTGGTGGGCGATGACTTCAGCCTGTACTATGA TGCGTACTCTGTGGATGAGCGGGTGGACTCTGACAGCAAGTCTGAAGTCGAAGCTCTAGCTGAACAGTTG AGTGAGGAGGAGGAGGAGGAAGAGGAGGAAGAAGAAGAAGAGGAGGAGGAGGAGGAAGAGGAGGAGGAGG AAGAAGAGGACGAGGAGTCGGGCAATCAGTCAGACAGGAGCGGTTCTAGTGGCCGGCGCAAGGCCAAGAA GAAATGGCGGAAAGACAGCCCGTGGGTGAAGCCATCTAGAAAACGGCGGAAACGAGAGCCTCCGAGGGCC AAGGAGCCAAGAGGAGTGAATGGTGTGGGTTCCTCAGGGCCCAGTGAGTACATGGAGGTTCCTCTGGGGT CCCTGGAGCTGCCCAGCGAGGGGACCCTCTCCCCCAACCACGCTGGGGTCTCCAATGACACGTCTTCACT GGAGACAGAACGCGGGTTTGAGGAGCTGCCCCTCTGCAGCTGCCGCATGGAGGCTCCCAAGATTGACCGC ATCAGCGAGAGAGCAGGGCACAAGTGCATGGCCACAGAGAGTGTGGATGGAGAGCTCCTGGGCTGCAATG

View online »

CTGCCATCCTTAAGCGGGAGACCATGCGGCCGTCTAGCCGCGTGGCGCTGATGGTGCTCTGTGAGGCCCA
TCGAGCCCGCATGGTCAAGCACCATTGCTGCCCGGGCTGCGGCTACTTCTGCACAGCGGGCACCTTCCTG
GAATGCCACCCCGACTTTCGTGTAGCTCACCGCTTCCATAAGGCCTGCGTATCCCAGCTCAATGGGATGG
TCTTCTGTCCCCACTGTGGAGAGGATGCCTCAGAGGCCCAGGAGGTGACCATTCCTCGGGGCGATGGGGG
AACACCCCCAATTGGCACCGCAGCTCCTGCTCTGCCACCCCTGGCACATGATGCCCCAGGGCGAGCGGAT
ACCTCCCAGCCTAGCGCCCGAATGCGAGGGCATGGAGAGCCGCGGCGCCCGCCCTGTGATCCCCTGGCTG
ACACCATCGACAGCTCAGGGCCTTCACTGACTCTGCCTAATGGGGGCTGCCTCTCCGCTGTGGGTCTGCC
CCCAGGGCCGGGCAGGGAAGCCCTGGAAAAAGCCTTGGTCATCCAGGAGTCTGAGAGGCGGAAGAAGCTG
CGATTCCACCCACGGCAGCTGTACCTGTCGGTGAAGCAGGGGGAGCTGCAGAAGGTGATCCTTATGCTGT
TAGACAACCTGGACCCCAACTTCCAGAGCGACCAGCAGAGCAAGCGCACGCCCCTGCACGCGGCCGCCCA
GAAGGGGTCGGTAGAGATCTGTCATGTGCTGCTGCAGGCAGGAGCCAACATCAATGCCGTAGATAAGCAA
CAACGCACGCCACTAATGGAGGCCGTGGTGAACAACCACCTGGAGGTGGCACGCTACATGGTGCAGTTAG
GTGGCTGTGTCTACAGCAAGGAAGAGGATGGCTCCACCTGTCTACATCATGCAGCCAAAATTGGGAACTT
GGAAATGGTCAGCCTGCTACTGAGCACAGGACAGGTGGACGTCAATGCCCAGGACAGTGGGGGCTGGACG
CCCATCATCTGGGCAGCCGAGCACAAGCACATCGATGTGATTCGTATGCTGCTGACCCGGGGTGCCGATG
TCACCCTGACTGACAATGAGGAAAACATCTGCCTGCACTGGGCCTCCTTCACGGGTAGTGCCGCCATCGC
TGAGGTCCTTCTGAATGCCCAGTGTGATCTCCATGCTGTCAACTACCATGGGGACACGCCCCTGCACATA
GCCGCCAGGGAGAGCTACCATGACTGTGTTCTGTTGTTCCTGTCTCGTGGAGCCAACCCTGAGCTTCGGA
ACAAAGAAGGAGACACGGCATGGGATCTGACCCCAGAGCGCTCTGATGTGTGGTTTGCACTGCAGCTCAA
TCGAAAGCTTAGGCTTGGGGTAGGGAACCGGGCTGTCCGCACCGAGAAGATCATCTGCCGGGACGTAGCC
CGAGGCTATGAGAATGTACCCATCCCCTGTGTCAATGGTGTGGATGGGGAGCCGTGCCCGGAGGACTACA
AGTACATCTCTGAGAACTGCGAGACATCGACCATGAACATCGACCGCAACATCACCCATCTGCAGCACTG
CACGTGTGTGGATGACTGCTCCAGCTCCAATTGCCTATGTGGTCAGCTCAGTATCCGATGCTGGTATGAC
AAGGACGGGCGGCTGCTCCAGGAGTTTAACAAGATCGAGCCCCCCCTGATCTTTGAGTGTAACCAGGCAT
GCTCCTGCTGGAGAAGCTGCAAGAACCGCGTGGTGCAGAGCGGCATCAAGGTACGGCTGCAGCTCTACCG
GACTGCCAAGATGGGCTGGGGGGTCCGAGCCTTGCAGACCATCCCCCAGGGCACGTTCATCTGCGAGTAT
GTAGGAGAGCTGATCTCTGATGCCGAGGCTGATGTGAGAGAGGATGATTCTTACCTCTTCGATTTAGATA
ACAAGGATGGCGAGGTTTACTGCATTGATGCCCGTTACTATGGCAACATCAGCCGATTCATTAACCACCT
GTGTGACCCCAACATCATCCCTGTCCGGGTTTTCATGCTGCACCAAGATCTACGGTTCCCACGCATTGCC
TTCTTCAGCTCCAGGGACATCCGGACTGGGGAGGAGCTGGGCTTTGACTACGGTGACCGATTCTGGGACA
TCAAGAGCAAGTATTTCACCTGCCAGTGTGGCTCTGAGAAGTGCAAGCATTCAGCGGAGGCCATCGCCCT
GGAGCAGAGCCGCCTGGCCCGGCTGGACCCCCACCCGGAGCTGCTCCCTGACCTCAGCTCCCTGCCCCCC
ATCAACACCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_145830

Insert Size: 3792 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

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_145830.2, NP_665829.1

RefSeq Size: 4070 bp

RefSeq ORF: 3792 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 (1) encodes the longest isoform (a, also known as G9a long).