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 MR226600

Ehmt1 (NM_001109686) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ehmt1 (NM_001109686) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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
ORF Nucleotide Sequence:	>MR226600 representing NM_001109686 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCCGCCGCTGATGCTGAGCAGGCAGTTCTGGCCAAGCAAGAGACCAAGCAGGATTGCTGCATGAAAA CTGAGCTGCTAAGGGAAGATACACCTATGGCTGCTGATGAAGGTTCCACAGAGAAACAAGAAGGAGAGAC TCCCATGGCTGCAGATGGAGAAACAAATGGGTCTTGTGAAAAGAGTGGGGATCCCAGCCATCTAAATGCA CCCAAACACACTCAGGAGAACACAAGAGCTAGCCCACAGGAAGGCACCAACAGAGTGTCTCGGGTGGCAG AAAATGGGGTTTCAGAAAGAGACACAGAAGTGGGGAAGCAAAACCATGTCACAGCTGACGACTTCATGCA GACATCTGTCATTGGCAGCAATGGATATTTCTTAAATAAACCAGCCCTGCAGGGGCAGCCGTTGAGGACT CCCAACATTCTAACCTCCTCGCTTCCTGGTCATGCTGCAAAAACTCTTCCTGGAGGAGCCAGTAAATGCA GGACTCTGAGTGCACTTCCTCAGACACCAACCACAGCACCCACTGTGCCTGGGGAAGGGAGTGCAGACAC AGAGGACAGAAAGCCTACAGCCTCGGGCACTGATGTCAGGGTTCACAGGGCACGCAAGACCATGCCGAAG TCCATCTTGGGCCTGCATGCAGCCAGCAAAGACCATAGAGAAGTTCAAGACCATAAGGAACCAAAAGAGG ATATCAACAGAAACATTTCTGAATGTGGACGACAGCAGCTTTTACCAACCTTCCCAGCCCTCCACCAGTC GCTACCTCAGAATCAGTGCTACATGGCCACCACAAAGTCCCAGACAGCAGCTGCAGTATCTCGGAAGAAA AAACGAAGAATGGGAACCTATAGTTTAGTTCCCAAGAAAAAGACCAAAGTATTAAAACAGAGGACGGTGA TTGAGATGTTTAAAAGCATAACCCATTCCACTGTGGGCGCCAAGGGCGAGAAAGCCTTAGATGATAGTGC CCTGCATGTAAATGGCGAGAGCTTGGAGATGGACTCAGAAGATGAAGACTCCGATGAGCTGGAGGATGAC GAGGACCATGGAGCTGAGCAAGCGGCTGCATTTCCCACCGAGGATAGTAGGACTTCTAAAGAGAGCATGT CTGAGACTGACCGGGCTGCAAAGATGGATGGAGATTCAGAGGAGGAACAGGAGTCTCCCGACACAGGGGA GGATGAAGATGGTGGAGACGAGTCTGACCTGAGTTCTGAATCCAGTATCAAGAAGAAATTTCTCAAGAGG AGAGGGAAGACTGACAGCCCCTGGATCAAACCTGCTCGGAAAAGGAGGCGGAGAAGTAGAAAGAAGCCGA GCAGCATGCTTGGGCTGGCCAGTGGTCCGGATGTGCTGGGGACGGATGGCCTCCAGGAAGTGCCTCTCTG CAGCTGCCGAATGGAAACCCCCAAGAGCCGCGAGATCAGCACCCTGGCCAACAACCAGTGCATGGCCACT GAGAGCGTGGATCACGAATTGGGCCGGTGTACAAACAGCGTGGTCAAGTATGAGCTGATGCGCCCATCCA

View online »

ACAAAGCACCGCTCTTGGTGTTATGTGAAGACCATCGGGGTCGCATGGTGAAGCACCAGTGCTGTCCTGG
CTGCGGCTACTTCTGCACGGCGGGTAACTTCATGGAATGCCAGCCTGAGAGCAGCATCTCTCATCGTTTC
CATAAGGACTGTGCCTCTCGAGTCAACAATGCCAGCTACTGTCCCCATTGTGGGGAAGAAGCTTCCAAGG
CCAAAGAGGTGACCATAGCAAAAGCAGACACAACTTCCACAGTGACCCTAGCCCCTGGACAGGAGAAGAG
CCTGGCTGCTGAAGGCAGGGCTGACACGACCACGGGCAGCATTGCTGGAGCCCCAGAGGATGAAAGATCG
CAGAGCACAGCCCCCCAGGCACCAGAGTGCTTCGACCCTGCCGGACCGGCTGGGCTCGTGAGGCCGACAT
CTGGCCTTTCCCAGGGCCCAGGAAAGGAAACCTTGGAAAGTGCTCTAATCGCTCTAGACTCTGAAAAACC
CAAGAAACTTCGCTTCCACCCAAAGCAGCTGTACTTCTCTGCCAGGCAGGGTGAGCTGCAGAAGGTGCTT
CTCATGCTGGTTGATGGAATTGATCCCAACTTCAAAATGGAGCACCAAAGTAAGCGTTCCCCATTACATG
CTGCTGCGGAGGCTGGCCACGTGGACATCTGCCACATGCTGGTTCAGGCGGGTGCCAATATTGACACTTG
CTCAGAGGACCAGCGGACCCCACTGATGGAGGCTGCAGAGAACAACCACTTGGATGCAGTGAAGTACCTC
ATCAAGGCTGGAGCACAGGTGGATCCGAAGGACGCAGAGGGCTCCACATGTTTGCATTTGGCTGCCAAGA
AAGGCCACTATGATGTGGTTCAGTATCTGCTTTCAAATGGACAGATGGATGTCAACTGCCAGGATGACGG
TGGATGGACACCTATGATCTGGGCCACTGAGTACAAGCACGTGGAGCTGGTGAAGCTGCTGCTGTCTAAG
GGCTCTGACATCAACATCCGGGACAACGAGGAGAACATTTGTCTGCACTGGGCAGCATTTTCAGGCTGTG
TGGACATAGCTGAAATACTTCTGGCTGCCAAGTGTGACCTGCATGCTGTGAATATCCATGGAGACTCACC
CCTGCACATCGCAGCCAGGGAGAATCGCTACGACTGTGTTGTCCTCTTTCTTTCTCGGGATTCAGATGTT
ACTCTGAAAAACAAGGAAGGAGAGACTCCCTTGCAGTGTGCAAGTCTCAGTTCGCAGGTGTGGAGTGCAT
TGCAGATGAGCAAAGCACTTCGGGACTCAGCCCCTGACAAGCCCGTTGCTGTTGAGAAGACGGTGAGCAG
GGATATCGCTCGAGGGTATGAGCGCATTCCCATTCCCTGTGTCAATGCTGTGGACAGTGAGCTGTGTCCT
ACCAACTATAAGTATGTCTCCCAGAACTGTGTGACATCCCCCATGAACATTGACAGGAACATCACTCATT
TGCAGTACTGCGTGTGTGTAGATGACTGCTCCTCTAGCACCTGCATGTGTGGCCAGCTGAGCATGCGCTG
CTGGTATGATAAGGATGGCCGACTTCTGCCTGAGTTTAACATGGCAGAACCACCCTTGATCTTCGAGTGC
AATCATGCCTGCTCATGCTGGAGGAACTGCCGCAATCGTGTGGTGCAAAATGGTCTCAGGGCAAGGCTGC
AGCTTTATCGGACACAGGACATGGGCTGGGGTGTGCGGTCCCTCCAGGATATCCCACTGGGCACCTTTGT
CTGCGAATACGTAGGGGAGCTGATTTCGGACTCTGAAGCTGATGTTCGGGAAGAGGACTCTTACCTCTTT
GATCTTGACAATAAGGATGGAGAGGTATACTGCATTGACGCTCGGTTCTATGGGAATGTCAGCCGGTTCA
TAAACCACCACTGCGAACCCAACCTTGTGCCTGTGCGAGTGTTCATGTCACACCAGGACCTGCGGTTTCC
CAGGATTGCCTTCTTCAGTACCCGCCTGATTCAGGCTGGGGAGCAGCTCGGGTTCGACTACGGGGAGCGC
TTTTGGGACGTCAAGGGCAAGCTCTTCAGTTGCCGGTGTGGGTCTTCCAAGTGTCGGCACTCAAGCGCAG
CCCTGGCCCAGAGGCAAGCCAGTGCAGCCCAGGAGCCTCAGGAGAATGGCCTTCCAGATACCAGCTCTGC
AGCCGCTGCTGACCCCCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

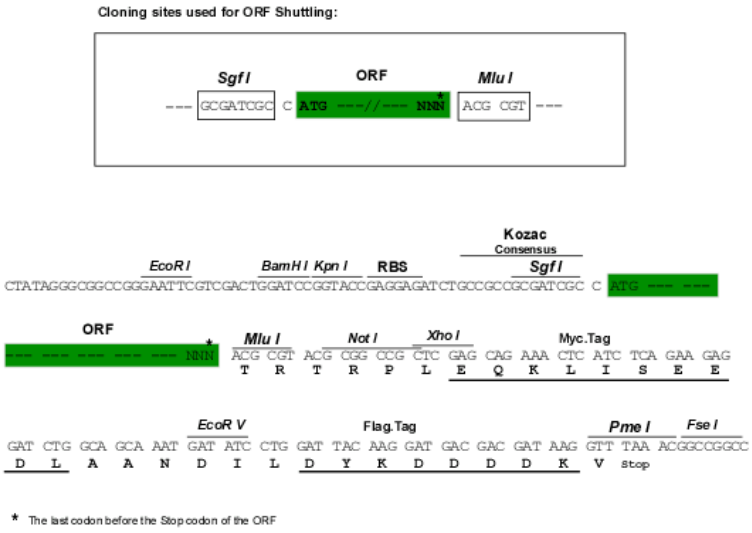
>MR226600 representing NM_001109686
Red=Cloning site Green=Tags(s)

MAAADAEQAVLAKQETKQDCCMKTELLREDTPMAADEGSTEKQEGETPMAADGETNGSCEKSGDPSHLNA
PKHTQENTRASPQEGTNRVSRVAENGVSERDTEVGKQNHVTADDFMQTSVIGSNGYFLNKPALQGQPLRT
PNILTSSLPGHAAKTLPGGASKCRTLSALPQTPTTAPTVPGEGSADTEDRKPTASGTDVRVHRARKTMPK
SILGLHAASKDHREVQDHKEPKEDINRNISECGRQQLLPTFPALHQSLPQNQCYMATTKSQTAAAVSRKK
KRRMGTYSLVPKKKTKVLKQRTVIEMFKSITHSTVGAKGEKALDDSALHVNGESLEMDSEDEDSDELEDD
EDHGAEQAAAFPTEDSRTSKESMSETDRAAKMDGDSEEEQESPDTGEDEDGGDESDLSSESSIKKKFLKR
RGKTDSPWIKPARKRRRRSRKKPSSMLGLASGPDVLGTDGLQEVPLCSCRMETPKSREISTLANNQCMAT
ESVDHELGRCTNSVVKYELMRPSNKAPLLVLCEDHRGRMVKHQCCPGCGYFCTAGNFMECQPESSISHRF
HKDCASRVNNASYCPHCGEEASKAKEVTIAKADTTSTVTLAPGQEKSLAAEGRADTTTGSIAGAPEDERS
QSTAPQAPECFDPAGPAGLVRPTSGLSQGPGKETLESALIALDSEKPKKLRFHPKQLYFSARQGELQKVL
LMLVDGIDPNFKMEHQSKRSPLHAAAEAGHVDICHMLVQAGANIDTCSEDQRTPLMEAAENNHLDAVKYL
IKAGAQVDPKDAEGSTCLHLAAKKGHYDVVQYLLSNGQMDVNCQDDGGWTPMIWATEYKHVELVKLLLSK
GSDINIRDNEENICLHWAAFSGCVDIAEILLAAKCDLHAVNIHGDSPLHIAARENRYDCVVLFLSRDSDV
TLKNKEGETPLQCASLSSQVWSALQMSKALRDSAPDKPVAVEKTVSRDIARGYERIPIPCVNAVDSELCP
TNYKYVSQNCVTSPMNIDRNITHLQYCVCVDDCSSSTCMCGQLSMRCWYDKDGRLLPEFNMAEPPLIFEC
NHACSCWRNCRNRVVQNGLRARLQLYRTQDMGWGVRSLQDIPLGTFVCEYVGELISDSEADVREEDSYLF
DLDNKDGEVYCIDARFYGNVSRFINHHCEPNLVPVRVFMSHQDLRFPRIAFFSTRLIQAGEQLGFDYGER
FWDVKGKLFSCRCGSSKCRHSSAALAQRQASAAQEPQENGLPDTSSAAAADPL

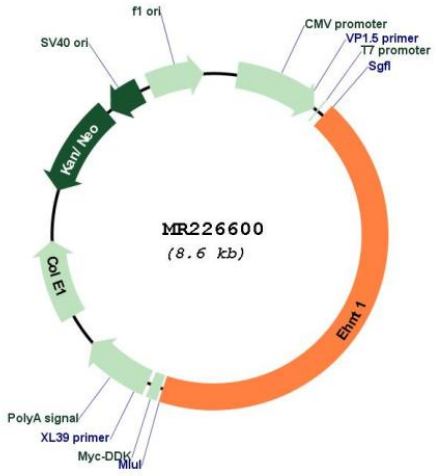
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001109686
ORF Size:	3729 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_001109686.2, NP_001103156.1
RefSeq Size:	4932 bp
RefSeq ORF:	3732 bp
Locus ID:	77683
UniProt ID:	Q5DW34

Cytogenetics:	2 A3
MW:	136.9 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 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]