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Product datasheet for SC303814

EHMT2/G9A (EHMT2) (NM_006709) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EHMT2/G9A (EHMT2) (NM_006709) Human Untagged Clone
Tag:	Tag Free
Symbol:	EHMT2
Synonyms:	BAT8; C6orf30; G9A; GAT8; KMT1C; NG36
Mammalian Cell Selection:	None
Vector:	pCMV6-XL6
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene sequence for NM_006709 edited
GCGCAAGCGGCGATGGCGGCGGCGGCGGGAGCTGCAGCGGCGGCGGCCGCCGAGGGGGAG
GCCCCCGCTGAGATGGGGGCGCTGCTGCTGGAGAAGGAAACCAGAGGAGCCACCGAGAGA
GTTCATGGCTCTTTGGGGGACACCCCTCGTAGTGAAGAAACCCTGCCCAAGGCCACCCCC
GACTCCCTGGAGCCTGCTGGCCCCTCATCTCCAGCCTCTGTCACTGTCACTGTTGGTGAT
GAGGGGGCTGACACCCCTGTAGGGGCTACACCACTCATTGGGGATGAATCTGAGAATCTT
GAGGGAGATGGGGACCTCCGTGGGGGCCGGATCCTGCTGGGCCATGCCACAAAGTCATTC
CCCTCTTCCCCCAGCAAGGGGGGTTCCTGTCCTAGCCGGGCCAAGATGTCAATGACAGGG
GCGGGAAAATCACCTCCATCTGTCCAGAGTTTGGCTATGAGGCTACTGAGTATGCCAGGA
GCCCAGGGAGCTGCAGCAGCAGGGTCTGAACCCCCTCCAGCCACCACGAGCCCAGAGGGA
CAGCCCAAGGTCCACCGAGCCCGCAAAACCATGTCCAAACCAGGAAATGGACAGCCCCCG
GTCCCTGAGAAGCGGCCCCCTGAAATACAGCATTTCCGCATGAGTGATGATGTCCACTCA
CTGGGAAAGGTGACCTCAGATCTGGCCAAAAGGAGGAAGCTGAACTCAGGAGGTGGCCTG
TCGGAGGAGTTAGGTTCTGCCCGGCGTTCAGGAGAAGTGACCCTGACGAAAGGGGACCCC
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TACTCTGTGGATGAGCGCGTGGACTCCGACAGCAAGTCTGAAGTTGAAGCTCTAACTGAA
CAACTAAGTGAAGAGGAGGAGGAGGAAGAGGAGGAAGAAGAAGAAGAGGAAGAGGAGGAG
GAAGAGGAAGAAGAAGAGGAAGATGAGGAGTCAGGGAATCAGTCAGATAGGAGTGGTTCC
AGTGGCCGGCGCAAGGCCAAGAAGAAATGGCGAAAAGACAGCCCATGGGTGAAGCCGTCT
CGGAAACGGCGCAAGCGGGAGCCTCCGCGGGCCAAGGAGCCACGAGGAGTGAATGGTGTG
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GAGGGGACCCTCTCCCCCAACCACGCTGGGGTGTCCAATGACACATCTTCGCTGGAGACA
GAGCGAGGGTTTGAGGAGTTGCCCCTGTGCAGCTGCCGCATGGAGGCACCCAAGATTGAC
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CTGATGGTGCTCTGTGAGACCCACCGCGCCCGCATGGTCAAACACCACTGCTGCCCGGGC
TGCGGCTACTTCTGCACGGCGGGCACCTTCCTGGAGTGCCACCCTGACTTCCGTGTGGCC

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CACCGCTTCCACAAGGCCTGTGTGTCTCAGCTGAATGGGATGGTCTTCTGTCCCCACTGT
GGGGAGGATGCTTCTGAAGCTCAAGAGGTGACCATCCCCCGGGGTGACGGGGTGACCCCA
CCGGCCGGCACTGCAGCTCCTGCACCCCCACCCCTGTCCCAGGATGTCCCCGGGAGAGCA
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GAGGAGAACATCTGCCTGCACTGGGCCTCCTTCACGGGCAGCGCCGCCATCGCCGAAGTC
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TGTGTCAACGGTGTGGATGGGGAGCCCTGCCCTGAGGATTACAAGTACATCTCAGAGAAC
TGCGAGACGTCCACCATGAACATCGATCGCAACATCACCCACCTGCAGCACTGCACGTGT
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TACTGCATAGATGCCCGTTACTATGGCAACATCAGCCGCTTCATCAACCACCTGTGTGAC
CCCAACATCATTCCCGTCCGGGTCTTCATGCTGCACCAAGACCTGCGATTTCCACGCATC
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CCCATGCCTGGGGGTGCTGCCATCTTCTCTCCCCACCACCCTTTCACACATTCCTGACCA
GAGATCCCAGCCAGGCCCTGGAGGTCTGACAGCCCCTCCCTCCCAGAGCTGGTTCCTCCC
TGGGAGGGCAACTTCAGGGCTGGCCACCCCCCGTGTTCCCCATCCTCAGTTGAAGTTTGA
TGAATTGAAGTCGGGCCTCTATGCCAACTGGTTCCTTTTGTTCTCAATAAATGTTGGGTT
TGGTAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_006709 unedited
ACCCGCCCCGTCTGAGCAACTGGGCGGTAGGCGCTGCACTGTGTTGGGAGGTTCTATTAT
AAGCAGAGCTCATTTAGGTTGACACTATAGAATACAAGCTACTCTGTTCTTTTTGCAGCG
GCCGCGAATTTCGGCACGAGGGCGCAAGCGGCGATGGCGGCGGCGGCGGGAGCCGCAGCG
GCGGCGGCCGCCGAGGGGGAGGCCCCCGCTGAGATGGGGGCGCTGCTGCTGGAGAAGGAA
ACCAGAGGAGCCACCGAGAGAGTTCATGGCTCTTTGGGGGACACCCCTCGTAGTGAAGAA
ACCCTGCCCAAGGCCACCCCCGACTCCCTGGAGCCTGCTGGCCCCTCATCTCCAGCCTCT
GTCACTGTCACTGTTGGTGATGAGGGGGCTGACACCCCTGTAGGGGCTACACCACTCATT
GGGGATGAATCTGAGAATCTTGAGGGAGATGGGGACCTCCGTGGGGGCCGGATCCTGCTG
GGCCATGCCACAAAGTCATTCCCCTCTTCCCCCAGCAAGGGGGGTTCCTGTCCTAGCCGG
GCCAAGATGTCAATGACAGGGGCGGGAAAATCACCTCCATCTGTCCAGAGTTTGGCTATG
AGGCTACTGAGTATGCCAGGAGCCCAGGGAGCTGCAGCAGCAGGGTCTGAACCCCCTCCA
GCCACCACGAGCCCAGAGGGACAGCCCAAGGTCCACCGAGCCCGCAAAACCATGTCCAAA
CCAGGAAATGGACAGCCCCCGGTCCCTGAGAAGCGGCCCCCTGAAATACAGCATTTCCGC
ATGAGTGATGATGTCCACTCACTGGGAAAGGTGACCTCAGATCTGGCCAAAAGAGAAGCT
GAACTCAGAGTGGCCTGTCGAGAGTAGTCTGCCCGCGTTCAGAGAGTGACCCTGACAAAG
GACCCGGTCCTGAGATGGAGACGTGTGGGGTGATGACTCAGTCTCTACTATGATCCTACT
CTGTGGATGAGCCCGTGGACTCGACG

3' Read Nucleotide Sequence:

>Forward primer walk for NM_006709 unedited
TATTGCAGATGTTGTTGGAGACCTGCTCTAGCTCCACTAGCCATGTTGCGGCCAGCTTCA
GCATCCGGTGCTGGTATTGACAAGGATGGGCGATTGCTCCAGGAATTTAACAAGATTGAG
CCTCCGCTGATTTTCGAGCGTAACCAGGCGCGCTCATGCTGGAGAAACTGCAAGAACCGG
GTCGTACAGAGTGGCATCAAGGTGCGGCTACAGCTCTACCGAACAGCCAAGATGGGCTGG
GGGGTCCGCGCCCTGCAGACCATCCCACAGGGGACCTTCATCTGCGAGTATGTCGGGGAG
CTGACCTCTGATGCTGAGGCTGATGTGAGAGAGGATGATTCTTACCTCTTCGACTTAGAC
AACAAGGATGGAGAGGTGTACTGCATAGATGCCCGTTACTATGGCAACATCAGCCGCTTC
ATCAACCACCTGTGTGACCCCAACATCATTCCCGTCCGGGTCTTCATGCTGCACCAAGAC
CTGCGATTTCCACGCATCGCCTTCTTCAGTTCCCGAGACATCCGGACTGGGGAGGAGCTA
GGGTTTGACTATGGCGACCGCTTCTGGGACATCAAAAGCAAATATTTCACCTGCCAATGT
GGCTCTGAGAAGTGCAAGCACTCAGCCGAAGCCATTGCCCTGGAGCAGAGCCGTCTGGCC
CGCCTGGACCCACACCCTGAGCTGCTGCCCGAGCTCGGCTCCCTGCCCCCTGTCAACACA
TGAGAACGGACCACACCCTCTCTCCCCAGCATGGATGGCCACAGCTCAGCCGCCTCCTCT
GCCACCAGCTGCTCGCAGCCCATGCCTGGGGGTGCTGCCATCTCTCTCCCCACCACCCTT
TCACACATTCCTGACCAGAGATCCCAGCCAGGCCCTGAGTCTGACAGCCCCTCCCTCCCA
GAGCTGTTCCTCCCTGGGAGGGCAACTTC

Restriction Sites: Please inquire

ACCN: NM_006709

Insert Size: 4000 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
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to differ from the protein associated to this reference by a single amino acid.
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_006709.2, NP_006700.2
RefSeq Size:	3994 bp
RefSeq ORF:	3633 bp
Locus ID:	10919
UniProt ID:	Q96KQ7
Cytogenetics:	6p21.33
Domains:	SET, ANK, PreSET, Pre-SET
Protein Families:	Druggable Genome
Protein Pathways:	Lysine degradation

Gene Summary: This gene encodes a methyltransferase that methylates lysine residues of histone H3. Methylation of H3 at lysine 9 by this protein results in recruitment of additional epigenetic regulators and repression of transcription. This gene was initially thought to be two different genes, NG36 and G9a, adjacent to each other in the HLA locus. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]
Transcript Variant: This variant (2, also known as NG36/G9a) uses an alternate 5' UTR and 5' coding region, contains an alternate in-frame exon in the 5' coding region, and lacks an alternate in-frame exon compared to variant 3. It encodes isoform a, which is shorter and has a distinct N-terminus, compared to isoform c.