

Product datasheet for **SC108494**

MGMT (NM_002412) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGMT (NM_002412) Human Untagged Clone
Tag:	Tag Free
Symbol:	MGMT
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002412, the custom clone sequence may differ by one or more nucleotides

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ATGCTGGGACAGCCCGGCCCTAGAACGCTTTGCGTCCCGACGCCCGCAGGTCCTCGCGGTGCGCACCG  
TTTGCGACTTGGTACTTGGAAAAATGGACAAGGATTGTGAAATGAAACGCACCACACTGGACAGCCCTTT  
GGGAAGCTGGAGCTGTCTGGTTGTGAGCAGGGTCTGCACGAAATAAAGCTCCTGGGCAAGGGGACGTCT  
GCAGCTGATGCCGTGGAGGTCCCAGCCCCGCTGCGGTTCTCGGAGGTCGGAGCCCTGATGCAGTGCA  
CAGCCTGGCTGAATGCCTATTTCCACCAGCCCAGGCTATCGAAGAGTTCCTCCGTCGCCGGCTCTTACCA  
TCCCGTTTTCCAGCAAGAGTCGTTACCCAGACAGGTGTTATGGAAGCTGCTGAAGTTGTGAAATTCGGA  
GAAGTATTTCTTACCAGCAATTAGCAGCCCTGGCAGGCAACCCAAAGCCGCGGAGCAGTGGGAGGAG  
CAATGAGAGGCAATCCTGTCCCCATCCTCATCCGTCGCCACAGAGTGGTCTGCAGCAGCGGAGCCGTGGG  
CAACTACTCCGGAGGACTGGCCGTGAAGGAATGGCTTCTGGCCATGAAGGCCACCGGTTGGGGAAGCCA  
GGCTTGGGAGGAGCTCAGGTCTGGCAGGGCCTGGCTCAAGGGAGCGGGAGCTACCTCGGGCTCCCCGC  
CTGCTGGCCGAACTGA
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5' Read Nucleotide Sequence: >OriGene 5' read for NM_002412 unedited
 CGTCAACATTTGTATACGACTCATATAGGCGGCCGCGCCTCGTGCCGAATTCGGCACGAG
 GCTGGGACAGCCCGCGCCCTAGAACGCTTTGCGTCCCAGCGCCCGCAGGTCCTCGCGGT
 GCGCACCGTTTGGCACTTGGTACTTGGAAAAATGGACAAGGATTGTGAAATGAAACGCAC
 CAACTGGACAGCCCTTTGGGGAAGCTGGAGCTGTCTGGTTGTGAGCAGGGTCTGCACGA
 AATAAAGCTCCTGGGCAAGGGGACGTCTGCAGCTGATGCCGTGGAGGTCCCAGCCCCCGC
 TGGCGTTCTCGGAGGTCGGAGCCCTGATGCAGTGCACAGCCTGGCTGAATGCCTATTT
 CCACCAGCCCGAGGCTATCGAAGAGTTCCCGTGCCGGCTTTCACCATCCCGTTTTCCA
 GCAAGAGTCGTTACCCAGACAGGTGTTATGGAAGCTGCTGAAGGTTGTGAAATTCGGAGA
 AGTGATTTCTTACCAGCAATTAGCAGCCCTGGCAGGCAACCCCAAAGCCGCGCAGCAGT
 GGGAGGAGCAATGAGAGGCAATCCTGTCCCATCCTCATCCCGTCCACAGAGTGGTCTG
 CAGCAGCGGAGCCGTGGGCAACTACTCCGGAGGACTGGCCGTGAAGGAATGGCTTCTGGC
 CCATGAAGGCCACCGTTGCGGAAGCCAGGCTTGGGAGGAGCTCANGTCTGCCAGGNGC
 CTGGCTCAAGGGAGCGGGAGCTACCTCGGGCTTCCCGCTGCTGGCCGAAGTATGT
 GCAGTCAGATGGATGTTTGGAGCGACACACAGTGTACACTGCATCGNATGCGGGGCGTG
 GNAGCCACCGCTGTATTAAGGAAGGGGCCAGTGTCTTGGGAAAAAAAAAAAAAAAAAAAA
 CTCGATTCTT

3' Read Nucleotide Sequence: >OriGene 3' read for NM_002412 unedited
 CGGCCGAATCTANAATCGAGTTTTTTTTTTTTTTTTTTTCCCAGGACACTGCCACTTCT
 TTAATACAGCGGTGCCTCCACGCCCCGCATCCGATGCAGTGTACACGTGTGTGTCGCTC
 AAACATCCATCCTACTGCACATACTCAGTTTCGGCCAGCAGGCGGGGAGCCCGAGGTAGC
 TCCCGCTCCCTTGAGCCAGGCCCTGCCAGACCTGAGCTCCCTCCCAAGCCTGGCTTCCC
 CAACCGGTGGCCTTCATGGGCCAGAAGCCATTCTTTCACGGCCAGTCTCCGGAGTAGTT
 GCCACGCTCCGCTGCTGCAGACCACTCTGTGGCACGGGATGAGGATGGGGACAGGATT
 GCCTCTCATTGCTCCTCCACTGCTCGCGCGGCTTTGGGTTGCCTGCCAGGGCTGCTAA
 TTGCTGGTAAGAAATCACTTCTCCGAATTTCAACCTTCAGCAGCTTCCATAACACCTG
 TCTGGTGAACGACTCTTGTGGAACGGGATGGTGAAGAGCCGGCAGGGGAACCTTTC
 GATAGCCTCGGGCTGGTGGAAATAGGCATTAGCCAGGCTGTGCACTGCATCAGGGGCTC
 CGGACCTCCGAGAACCGCAGCGGGGCTGGGACCTCCACGGCATCAGCTGCAGACGTCCC
 CTTGCCCAGGAGCTTTATTTCTGTCAGACCCTGCTCACAACCAGACAGCTCCAGCTTCCC
 CAAAGGGCTGTCCAGTGTGGTGCCTTTCATTTCACTCCTTGTGCATTCTTCCAAGTAC
 CAAGTCGNAACGGTGCACCCGAGAGGACCTGCGGGCGTCGGGGCGCAAAGCGTTCTAG
 GGGCGCGGGCTGTCCACCCTCGGGCCGATNCGGCACGAGCGCGCCGGCCTTAAGGGAG
 TCGGATTAATAAATTCTGACGGTTCACTAACGAGCTCTGGCTATATAGACTCCCCCGGACA
 ACCTACCGCCATTGCGTAAAGGGCCGGGCTTT

Restriction Sites: NotI-NotI
ACCN: NM_002412
Insert Size: 870 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:	<ol style="list-style-type: none"> 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_002412.2 , NP_002403.1
RefSeq Size:	1265 bp
RefSeq ORF:	624 bp
Locus ID:	4255
UniProt ID:	P16455
Cytogenetics:	10q26.3
Domains:	Methyltransf_1
Protein Families:	Druggable Genome
Gene Summary:	Alkylating agents are potent carcinogens that can result in cell death, mutation and cancer. The protein encoded by this gene is a DNA repair protein that is involved in cellular defense against mutagenesis and toxicity from alkylating agents. The protein catalyzes transfer of methyl groups from O(6)-alkylguanine and other methylated moieties of the DNA to its own molecule, which repairs the toxic lesions. Methylation of the genes promoter has been associated with several cancer types, including colorectal cancer, lung cancer, lymphoma and glioblastoma. [provided by RefSeq, Sep 2015]