

Recombinant Human MGMT protein, His-tagged

Cat. No. MGMT-28449TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human MGMT(1-207aa) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-207 a.a.
Description	O-6-methylguanine-DNA methyltransferase (MGMT) is an enzyme that repairs O-6-methylguanine, a mutagenic DNA base damaged by endogenous and environmental alkylating agents and is involved in the cellular defense against the biological effects of O-6-methylguanine in DNA. MGMT repairs alkylated guanine in DNA by stoichiometrically transferring the alkyl group at the O-6 position to a cysteine residue in the enzyme. There are few reports that abnormal MGMT expression correlates with the prognosis in human solid cancers.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 7.5) containing 1 mM DTT, 10% glycerol
Molecular Mass	23.8 kDa (227 aa), confirmed by MALDI-TOF. (Molecular weight on SDS-PAGE will appear higher)
AA Sequence	MGSSHHHHHH SSGLVPRGSH MDKDCMKRT TLDSPGKLE LSGCEQGLHE IKLLGKGTSA ADAVEVPAPA AVLGGPEPLM QCTAWLNAYFHQPEAIEEFP VPAFHHPVFQ QESFTRQVLW KLLKVVKFGE VISYQQLAAL AGNPKAARAV

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GGAMRGNPVP ILIPCHRVCV SSGAVGNYSGLAVKEWLLA HEGHRLGKPG
LGGSSGLAGA WLKGAGATSG SPPAGRN

Endotoxin < 1.0 EU per 1 microgram of protein (determined by LAL method)

Purity > 95% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [MGMT O-6-methylguanine-DNA methyltransferase \[Homo sapiens \]](#)

Official Symbol [MGMT](#)

Synonyms MGMT; O-6-methylguanine-DNA methyltransferase; methylated-DNA--protein-cysteine methyltransferase; methylguanine-DNA methyltransferase; O-6-methylguanine-DNA-alkyltransferase; O6-methylguanine-DNA methyltransferase; 6-O-methylguanine-DNA methyltransferase;

Gene ID [4255](#)

mRNA Refseq [NM_002412](#)

Protein Refseq [NP_002403](#)

MIM [156569](#)

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UniProt ID	P16455
Chromosome Location	10q26
Pathway	DNA Damage Reversal, organism-specific biosystem; DNA Repair, organism-specific biosystem;
Function	DNA binding; DNA-methyltransferase activity; calcium ion binding; methylated-DNA-[protein]-cysteine S-methyltransferase activity; methyltransferase activity; transferase activity;

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