

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 TLDSP LGKLE LSGCEQGLHE IKLLGKGTSA ADAVEVPAPA AVLGGPEPLM QCTAWLNAYFHQPEAIEEFP VPAFHHPVFQ QESFTRQVLW KLLKVVKFGE VISYQQLAAL AGNPKAARAV

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	GGAMRGNPVP ILIPCHRVVC SSGAVGNYSGLAVKEWLLA HEGHRLGKPG LGGSSGLAGA WLKGAGATSG SPPAGR N
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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