

Recombinant Human MGMT, His-tagged

Cat. No. MGMT-6958H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length human MGMT was expressed by baculovirus in Sf9 insect cells using an N-terminal His tag.
Species	Human
Source	Sf9 Cells
ProteinLength	Full length
Description	MGMT or O-6-methylguanine-DNA methyltransferase is the major mutagenic and carcinogenic lesion in DNA induced by simple alkylating mutagens. The methylation of the MGMT promoter in gliomas is a useful predictor of the responsiveness of the tumors to alkylating agents. The clinical trial substantiates the predictive value of O-6-methylguanine-DNA methyltransferase promoter methylation in glioblastoma patients treated with temozolomide. Methylation of the MGMT promoter in tumors is associated with longer survival in glioblastoma patients.
Form	Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.
Molecular Mass	~25 kDa
Purity	>95%
Applications	Western Blot

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Storage	Store at -70°C . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.1 $\mu\text{g}/\mu$
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
UniProt ID	P16455
Chromosome Location	10q26
Pathway	DNA Damage Reversal, organism-specific biosystem; DNA Repair, organism-specific biosystem;

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Function

DNA binding; DNA-methyltransferase activity; calcium ion binding; methylated-DNA-[protein]-cysteine S-methyltransferase activity; methyltransferase activity; transferase activity;

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