

## 32-2539: MGMT Recombinant Protein

**Alternative Name :** Methylated-DNA--protein-cysteine methyltransferase,6-O-methylguanine-DNA methyltransferase,O-6-methylguanine-DNA-alkyltransferase,MGMT.

### Description

Source : Escherichia Coli. MGMT Human Recombinant fused to a 20 amino acid His Tag at N-terminal produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 227 amino acids (1-207) and having a molecular mass of 23.8 kDa. The MGMT is purified by proprietary chromatographic techniques. MGMT is an enzyme that repairs O-6-methylguanine, a mutagenic DNA base damaged by endogenous and environmental alkylating agents and takes part 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. abnormal MGMT expression correlates with the prognosis in human solid cancers. MGMT decrease of expression is correlated with methylation. The human MGMT is a negative regulator of estrogen receptor-mediated transcription upon alkylation DNA damage. MGMT promoter hypermethylation plays an important role in the early steps of colorectal carcinogenesis. Abnormal promoter hypermethylation of MGMT gene is associated with oral squamous cell carcinomas.

### Product Info

**Amount :** 20 µg  
**Purification :** Greater than 95.0% as determined by SDS-PAGE.  
**Content :** The MGMT solution contains 20mM Tris-HCl pH-7.5, 1mM DTT and 10% glycerol.  
**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.  
**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MDKDCMKRT TLDSPGKLE LSGCEQGLHE IKLLGKGTSA  
 ADAVEVPAPA AVLGGPEPLM QCTAWLNAYF HQPEAIEEFP VPAFHHPVFQ QESFTRQVLW KLLKVVKFGE  
 VISYQQLAAL AGNPKAARAV GGAMRGNPVP ILIPCHRVC SSGAVGNYSGLAVKEWLLA HEGHRLGKPG  
 LGGSSGLAGA WLKGAGATSG SPPAGRN.

