

AR50027PU-S**Human MGMT (1-207, His-tag) - Purified****Alternate names:**

6-O-methylguanine-DNA methyltransferase, Methylated-DNA-protein-cysteine methyltransferase, O-6-methylguanine-DNA-alkyltransferase

Quantity:

0.1 mg

Concentration:

0.5 mg/ml (determined by Bradford assay)

Background:

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.

Uniprot ID:

[P16455](#)

NCBI:

[NP_002403.2](#)

Species:

Human

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >95% by SDS - PAGE

Buffer System: 20 mM Tris-HCl buffer (pH 7.5) containing 1 mM DTT, 10% glycerol

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

Description:

Recombinant MGMT, fused to His-tag at N-terminus, was expressed in E.coli and was purified by conventional chromatography techniques.

AA Sequence:

MGSSHHHHHHH SSGLVPRGSH MDKDCEMKRT TLDSP LGKLE LSGCEQGLHE IKLLGKGTSA
ADAVEVPAPA AVLGGPEPLM QCTAWLNAYF HQPEAIEEFP VPAFHHPVFQ QESFTRQVLW
KLLKVVVFGE VISYQQLAAL AGNPKAARAV GGAMRGNPVP ILIPCHRVCV SSGAVGNYSG
GLAVKEWLLA HEGHRLGKPG LGGSSGLAGA WLKGAGATSG SPPAGRN

Molecular weight: 23.8 kDa (227 aa), confirmed by MALDI-TOF. (Molecular weight on SDS-PAGE will appear higher)

Storage:

Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

Matsukura S., et al. (2001) *Annals of Surgical Oncology*, 8(10):807--816
Esteller M., et al. (2002) *J Natl Cancer Inst.* 2, 26-32.

Pictures:

