

Recombinant human MGMT protein

Catalog Number: MMT0901

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-207aa

UniProt No.

P16455

NCBI Accession No.

NP_002403.3

Alternative Names

O-6-methylguanine-DNA methyltransferase, MGMT, EC 2.1.1.63, O-6-methylguanine-DNA-alkyltransferase, O-6-methylguanine-DNA methyltransferase 6 O methylguanine DNA methyltransferase, Agat, AGT, AI267024, MGC107020, Methylated DNA protein cysteine methyltransferase, Methylguanine DNA methyltransferase, O 6 methylguanine DNA alkyltransferase.

PRODUCT SPECIFICATION

Molecular Weight

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

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 1mM DTT, 10% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

O-6-methylguanine-DNA methyltransferase (MGMT) is an enzyme that repairs O-6-methylguanine, a mutagenic

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

Amino acid Sequence

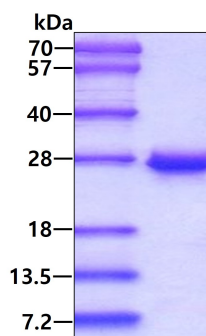
<MGSSHHHHH SSGLVPRGSH> MDKDCMKRT TLDSP LGKLE LSGCEQGLHE IKLLGKGTSA ADAVEVPAPA
AVLGGPEPLM QCTAWLNAYF HQPEAIEEF VPAFHHPVFQ QESFTRQVLW KLLKVVKFGE VISYQQLAAL AGNPKAARAV
GGAMRGNPVP ILIPCHRVVC SSGAVGNYSGLAVKEWLLA HEGHRLGKPG LGGSSGLAGA WLKGAGATSG SPPAGRN

General References

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.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.