

**MGMT Antibody**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM8481b**

**Specification**

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**MGMT Antibody - Product Information**

Application	<b>WB, FC,E</b>
Primary Accession	<a href="#">P16455</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>monoclonal</b>
Isotype	<b>IgG1,k</b>
Calculated MW	<b>21646</b>

**MGMT Antibody - Additional Information**

**Gene ID** 4255

**Other Names**

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

**Target/Specificity**

This MGMT antibody is generated from a mouse immunized with a recombinant protein.

**Dilution**

WB~~1:1000-1:2000

FC~~1:25

**Format**

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MGMT Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**MGMT Antibody - Protein Information**

**Name** MGMT

**Function** Involved in the cellular defense against the biological effects of O6-methylguanine (O6-MeG) and O4-methylthymine (O4-MeT) in DNA. Repairs the methylated nucleobase in DNA by stoichiometrically transferring the methyl group to a cysteine residue in the enzyme. This is a suicide reaction: the enzyme is irreversibly inactivated.

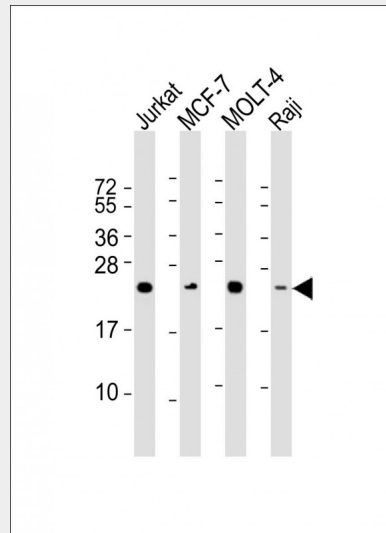
**Cellular Location**

Nucleus.

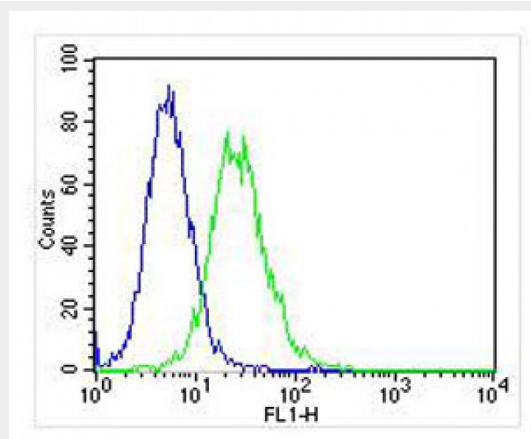
**MGMT Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**MGMT Antibody - Images**

All lanes : Anti-MGMT Antibody at 1:1000-1:2000 dilution Lane 1: Jurkat whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: MOLT-4 whole cell lysate Lane 4: Raji whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



Overlay histogram showing Jurkat cells stained with AM8481b (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AM8481b, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(NA168821) at 1/400 dilution for 40 min at 37°C. Isotype control antibody (blue line) was mouse IgG (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10, 000 events was performed.

### **MGMT Antibody - Background**

Involved in the cellular defense against the biological effects of O6-methylguanine (O6-MeG) in DNA. Repairs alkylated guanine in DNA by stoichiometrically transferring the alkyl group at the O-6 position to a cysteine residue in the enzyme. This is a suicide reaction: the enzyme is irreversibly inactivated.

### **MGMT Antibody - References**

- Tano K.,et al.Proc. Natl. Acad. Sci. U.S.A. 87:686-690(1990).  
Rydberg B.,et al.J. Biol. Chem. 265:9563-9569(1990).  
Koike G.,et al.J. Biol. Chem. 265:14754-14762(1990).  
Hayakawa H.,et al.J. Mol. Biol. 213:739-747(1990).  
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.