

**MGMT Antibody**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM2217b**

**Specification**

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**MGMT Antibody - Product Information**

Application	IF, WB, IHC, IHC-P,E
Primary Accession	<a href="#">P16455</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	21646

**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**

Purified His-tagged MGMT protein was used to produced this monoclonal antibody.

**Dilution**

IF~~1:25  
WB~~1:1000  
IHC~~1:100  
IHC-P~~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

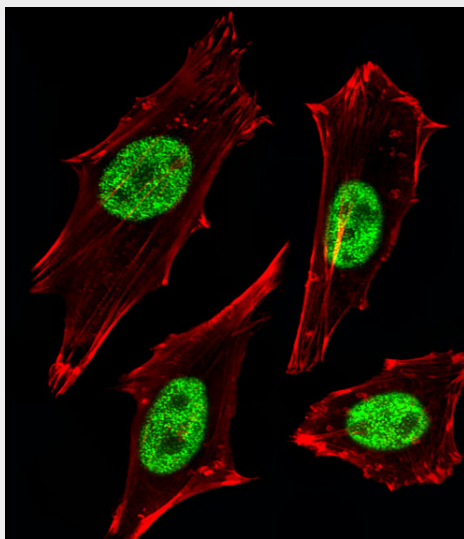
Nucleus.

#### MGMT Antibody - Protocols

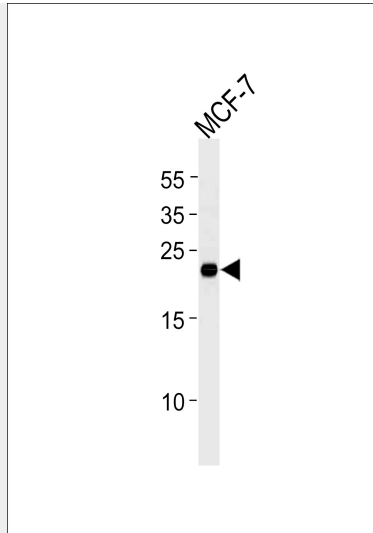
Provided below are standard protocols that you may find useful for product applications.

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

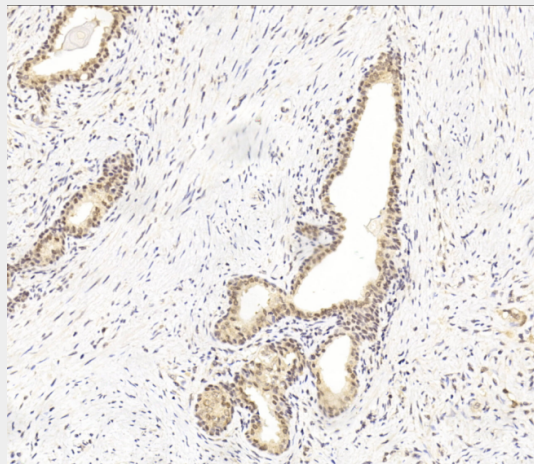
#### MGMT Antibody - Images



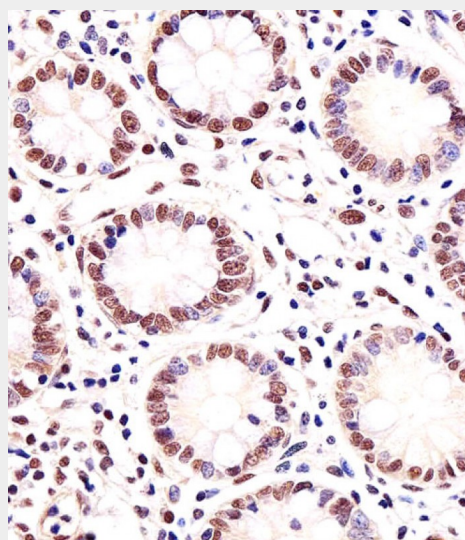
Fluorescent image of HeLa cells stained with MGMT Antibody (Cat#AM2217B). AM2217B was diluted at 1:25 dilution. An Alexa Fluor® 488-conjugated goat anti-mouse IgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).



MGMT Antibody(Cat. #AM2217b) western blot analysis in MCF-7 cell line lysates (35 $\mu$ g/lane).This demonstrates the MGMT antibody detected the MGMT protein (arrow).



Immunohistochemical analysis of paraffin-embedded Human Prostate cancer section using Pink1(Cat#AM2217b). AM2217b was diluted at 1:100 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded H. small intestine section using MGMT Antibody(Cat#AM2217B). AM2217B was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

#### **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**

Edara S., et al. Carcinogenesis 16:1637-1642(1995).  
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).