

### MGMT Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7341b

### **Specification**

## MGMT Antibody (C-term) - Product Information

Application WB, FC, IHC-P,E

Primary Accession
Reactivity
Host
Clonality
Rotype
Antigen Region
Reactivity
Human
Rabbit
Polyclonal
Rabbit IgG
Antigen Region
Rabbit IgG

## MGMT Antibody (C-term) - 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 rabbits immunized with a KLH conjugated synthetic peptide between 156-182 amino acids from the C-terminal region of human MGMT.

#### **Dilution**

WB~~1:1000 FC~~1:10~50 IHC-P~~1:50~100

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation 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 (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## MGMT Antibody (C-term) - 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.

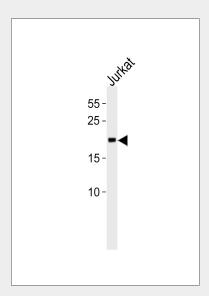
**Cellular Location** Nucleus.

### MGMT Antibody (C-term) - Protocols

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

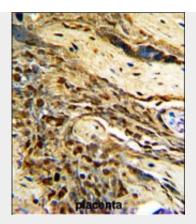
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## MGMT Antibody (C-term) - Images

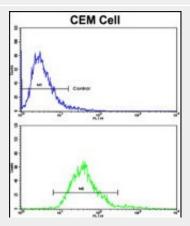


MGMT Antibody (C-term) (Cat. #AP7341b) western blot analysis in Jurkat cell line lysates (35ug/lane). This demonstrates the MGMT antibody detected the MGMT protein (arrow).





Formalin-fixed and paraffin-embedded human placenta with MGMT Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of CEM cells using MGMT Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### MGMT Antibody (C-term) - Background

MGMT is involved in the cellular defense against the biological effects of O6-methylguanine (O6-MeG) in DNA. This protein 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 protein is irreversibly inactivated.

# MGMT Antibody (C-term) - References

Kim,J.I., Suh,J.T. Hum. Pathol. 40 (7), 934-941 (2009) Chen,S.P., Chiu,S.C. Genet Test Mol Biomarkers 13 (1), 67-71 (2009) Slupphaug,G., Lettrem,I. Carcinogenesis 13 (10), 1769-1773 (1992) Lee,S.M., Crowther,D. Br. J. Cancer 66 (2), 331-336 (1992)

## MGMT Antibody (C-term) - Citations

- Impact of O6-methylguanine-DNA methyltransferase expression on the drug resistance of clear cell renal cell carcinoma.
- <u>High-mobility group box 2 is associated with prognosis of glioblastoma by promoting cell viability, invasion, and chemotherapeutic resistance.</u>