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MGMT Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7341b

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	P16455
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	21646
Antigen Region	156-182

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	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 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.

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.

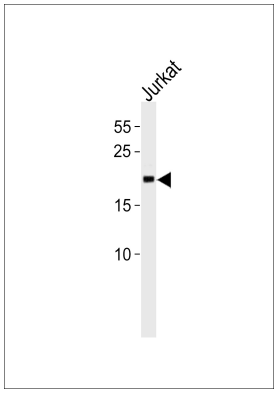
Background

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.

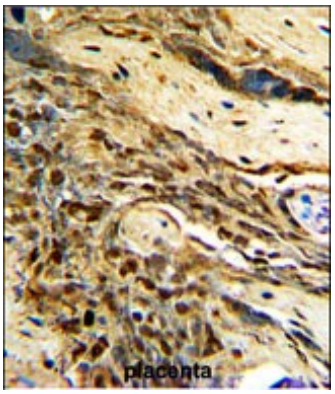
References

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)

Images

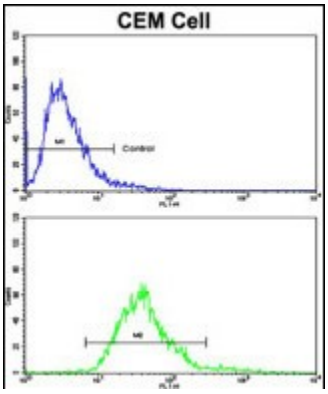


MGMT Antibody (C-term) (Cat. #AP7341b) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the MGMT antibody detected the MGMT protein (arrow).



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.



Citations

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.