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MGMT Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AW5190

Product Information

Application	IHC-P, IF, WB
Primary Accession	P16455
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	21646
Isotype	IgG1
Antigen Source	Human

Additional Information

Gene ID	4255
Antigen Region	1-217
Other Names	MGMT;Methylated-DNA--protein-cysteine methyltransferase; Methylated-DNA--protein-cysteine methyltransferase; 6-O-methylguanine-DNA methyltransferase; Methylated-DNA--protein-cysteine methyltransferase; O-6-methylguanine-DNA-alkyltransferase
Dilution	IHC-P~~1:100~500 IF~~1:25 WB~~1:1000
Target/Specificity	Purified His-tagged MGMT protein was used to produced this monoclonal antibody.
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.

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.

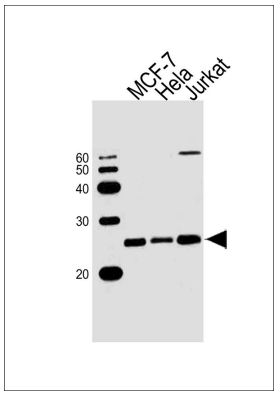
Background

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.

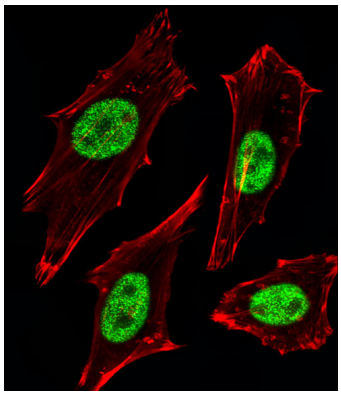
References

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).

Images

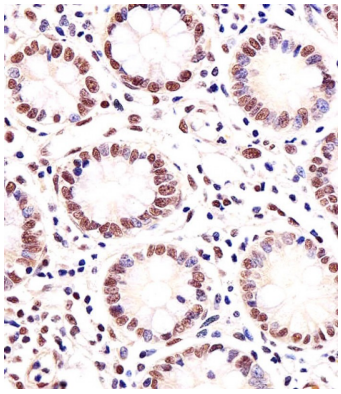


Western blot analysis of lysates from MCF-7,Hela,Jurkat cell line (from left to right), using MGMT Antibody(Cat. #AW5190). AW5190 was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.



Fluorescent image of Hela cells stained with MGMT Antibody(Cat#AW5190). AW5190 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).

Immunohistochemical analysis of paraffin-embedded H. small intestine section using MGMT Antibody(Cat#AW5190). AW5190 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



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