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MGMT Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8481b

Product Information

Application	WB, FC, E
Primary Accession	P16455
Reactivity	Human, Rat, Mouse
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1527CT158.87.44
Calculated MW	21646

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 E~~Use at an assay dependent concentration.
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.

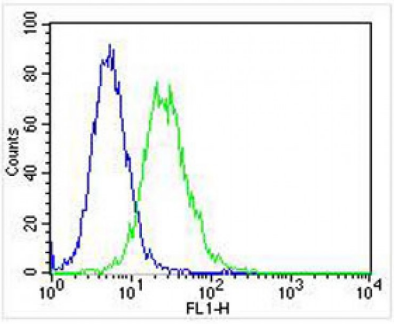
Background

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.

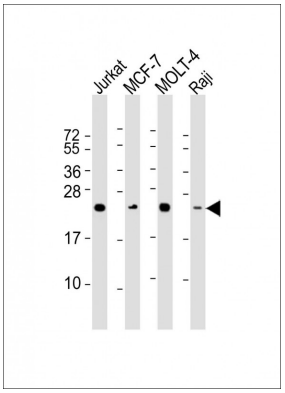
References

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.

Images



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 icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AM8481b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(NA168821)) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was mouse IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes : Anti-MGMT Antibody at1:1000-1:2000 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% NFDM/TBST.