For Research Use Only

MGMT Monoclonal antibody

Catalog Number:67476-1-Ig Featured Product 3 Publications

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Basic Information

Catalog Number:
67476-1-Ig

Size:
150ul , Concentration: 1000 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG2a

Immunogen Catalog Number:
AG29936

GenBank Accession Number:
BC000824

GeneID (NCBI):
4255

UNIPROT ID:
P16455

Full Name:
O-6-methylguanine-DNA methyltransferase

Calculated MW:
22 kDa

Observed MW:
22 kDa

Purification Method:
Protein A purification

CloneNo.:
1H2C9

Recommended Dilutions:
WB 1:5000-1:50000
IF/ICC 1:50-1:500

Applications

Tested Applications:
WB, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB, IF

Species Specificity:
human

Cited Species:
human, mouse

Positive Controls:

WB : U2OS cells, HeLa cells, HepG2 cells, LNCaP cells, Jurkat cells, A549 cells, MCF-7 cells, MOLT-4 cells, NK-92 cells, Raji cells

IF/ICC : HepG2 cells,

Background Information

MGMT is the primary vehicle for cellular removal of alkyl lesions from the O-6 position of guanine and the O-4 position of thymine. While key to the maintenance of genomic integrity, MGMT also removes damage induced by alkylating chemotherapies, inhibiting the efficacy of cancer treatment [PMID:23065697].MGMT is the primary mechanism for the removal of alkylation damage from the O-6 position of guanine [PMID: 17482892]. The O-6 position of guanine is one of several positions in DNA bases to which alkyl groups are attached in SN1 alkylation reactions, and this repair has been well-characterized in mammalian cells and via MGMT homologs in bacteria and Archaea.[PMID: 10767620]

Notable Publications

Author	Pubmed ID	Journal	Application
Mingming Yang	35648484	Nucleic Acids Res	IF
Claire S Chung	39375347	Nat Commun	WB
Zengpanpan Ye	36649564	Cancer Discov	IF

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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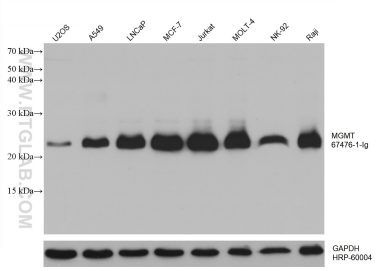
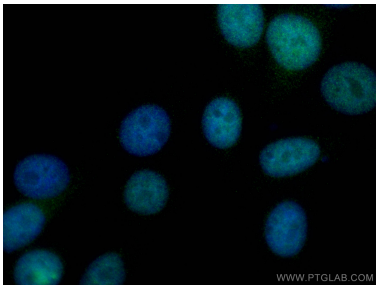
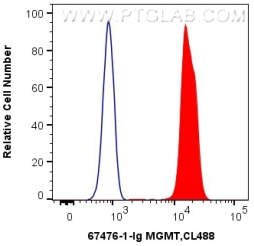
Selected Validation Data



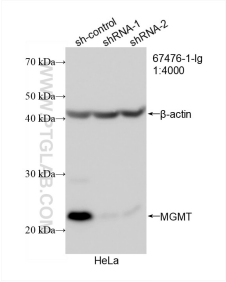
Various lysates were subjected to SDS PAGE followed by western blot with 67476-1-Ig (MGMT antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MGMT antibody (67476-1-Ig, Clone: 1H2C9) at dilution of 1:100 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).



1X10^6 Jurkat cells were intracellularly stained with 0.4 ug Anti-Human MGMT (67476-1-Ig, Clone:1H2C9) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



WB result of MGMT antibody (67476-1-Ig; 1:4000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MGMT transfected HeLa cells.