

MGMT (E6M7V) Rabbit mAb

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Applications: W, IP, IF-IC	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 21	Source/Isotype: Rabbit IgG	UniProt ID: #P16455	Entrez-Gene Id: 4255
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:200
1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

MGMT (E6M7V) Rabbit mAb recognizes endogenous levels of total MGMT protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly200 of human MGMT protein.

Background

MGMT (O-6-methylguanine-DNA methyltransferase) is a DNA repair enzyme that participates in a suicide reaction that specifically removes methyl or alkyl groups from the O(6) position of guanine, restoring guanine to its normal form without causing DNA breaks (1). MGMT protects cells from alkylating toxins, and is an important factor in drug resistance to alkylating therapeutic agents (2,3). It is ubiquitously expressed in normal human tissues (4) and is overexpressed in many types of human tumors, but epigenetically silenced in other tumors. MGMT silencing is a marker associated with poor prognosis, but is a good predictive marker for response to alkylating agent chemotherapy (5).

Background References

1. Pegg, A.E. (2000) *Mutat. Res.* 462, 83-100.
2. Bobola, M.S. et al. (2005) *Clin. Cancer Res.* 11, 2747-2755.
3. Pollack, I.F. et al. (2006) *J. Clin. Oncol.* 24, 3431-3437.
4. Gerson, S.L. et al. (1986) *Carcinogenesis* 7, 745-749.
5. Soejima, H. et al. (2005) *Biochem. Cell Biol.* 83, 429-437.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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