

#2739 Store at -20°C

MGMT Antibody

✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications W Endogenous	Species Cross-Reactivity* H, Mk	Molecular Wt. 21 kDa	Source Rabbit**
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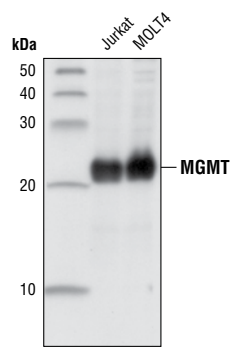
Background: MGMT (O-6-methylguanine-DNA methyltransferase) is a DNA repair enzyme that participates in a suicide reaction that specifically removes methyl or alkyl groups from the O(6) position of guanine, restoring guanine to its normal form and without causing DNA breaks (1). MGMT protects cells from 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).

Specificity/Sensitivity: MGMT Antibody detects endogenous levels of total MGMT protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids near the amino terminus of human MGMT. Antibodies are purified by peptide affinity chromatography.

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.



Western blot analysis of extracts from Jurkat and MOLT4 cells using MGMT Antibody.

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

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.