

#2739 Store at -20°C

MGMT Antibody


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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H Mk	Endogenous	21	Rabbit	#P16455	4255

Product Usage Information	Application Western Blotting	Dilution 1:1000
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.	
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	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) <i>Mutat. Res.</i> 462, 83-100. 2. Bobola, M.S. et al. (2005) <i>Clin. Cancer Res.</i> 11, 2747-2755. 3. Pollack, I.F. et al. (2006) <i>J. Clin. Oncol.</i> 24, 3431-3437. 4. Gerson, S.L. et al. (1986) <i>Carcinogenesis</i> 7, 745-749. 5. Soejima, H. et al. (2005) <i>Biochem. Cell Biol.</i> 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	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus 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 GP: Guinea Pig Rab: rabbit All: all species expected
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