

#43918 Store at -20°C

MTH1 (D6V4O) Rabbit mAb



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H R	Endogenous	18	Rabbit IgG	#P36639	4521

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:200
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	MTH1 (D6V4O) Rabbit mAb recognizes endogenous levels of total MTH1 protein. Based on the sequence of the immunogenic peptide, this antibody is expected to recognize all isoforms of MTH1.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala70 of human MTH1 protein.	
Background	MutT Homolog 1 (MTH1), an oxidized purine nucleoside triphosphatase, hydrolyzes potentially mutagenic oxidized nucleotide triphosphates, preventing their accumulation in nucleotide pools and their incorporation into DNA and RNA (1). In addition to its function in sanitizing the cell's nucleotide pool, MTH1 has been shown to have anti-proliferative effects in RAS-transformed tumors (2). Researchers have shown that, while not essential in normal cells, MTH1 is required for cancer cell survival due to increased oxidative damage, and that inhibition of MTH1 activity suppresses cancer growth (3,4).	
Background References	1. Nakabeppu, Y. et al. (2006) <i>DNA Repair (Amst)</i> 5, 761-72. 2. Giribaldi, M.G. et al. (2015) <i>Oncotarget</i> 6, 11519-29. 3. Gad, H. et al. (2014) <i>Nature</i> 508, 215-21. 4. Huber, K.V. et al. (2014) <i>Nature</i> 508, 222-7.	

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 IP: Immunoprecipitation
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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