

Rabbit Anti-MGMT [EP337]: RM0382RTU7

Intended Use: For Research Use Only

Description: MGMT (O6-methylguanine-DNA methyltransferase) is transcriptionally activated in response to DNA damage and functions to repair mutagenic and cytotoxic O6-alkylguanine lesions caused by carcinogens or cytostatic drugs. MGMT induction by ionising radiation does not occur in p53-deficient mice, suggesting that MGMT induction may require p53. Similarly, MGMT mRNA and protein were shown to be inducible by ionising radiation only in cell lines that express functional p53, and not in cell lines that do not express wild type p53. In contrast, in a study of oral cancer cell lines, high MGMT activity was associated with the presence of mutant p53. Similarly, MGMT activity was significantly lower in ovarian tumors with wild-type p53 than in tumors with mutant p53, supporting the view that wild type p53 downregulates the basal MGMT promoter.

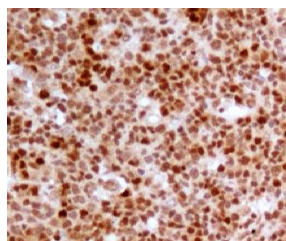
Specifications

Clone: EP337
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human
 Localization: Nucleus, cytoplasm
 Formulation: Antibody in PBS pH7.5, containing 0.2% BSA and <0.1% sodium azide (NaN3)
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

Description	Catalog No.	Size
MGMT Prediluted	RM0382RTU7	7 ml

IHC Procedure

Positive Control: Tonsil
 Concentrated Dilution: Prediluted
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual
 * Result should be confirmed by an established diagnostic procedure.



FFPE human tonsil stained with anti-MGMT using DAB

References:

1. Long-Term Outcome and MGMT as a Predictive Marker in 24 Patients With Atypical Pituitary Adenomas and Pituitary Carcinomas Given Treatment With Temozolomide. Bengtsson D, et al. J Clin Endocrinol Metab. Apr;100(4):1689-98, 2015.
2. Immunohistochemical evaluation of O6 -methylguanine DNA methyltransferase (MGMT) expression in 117 cases of glioblastoma. Miyazaki M, et al. Neuropathology. Jun;34(3):268-76, 2014.
3. Comprehensive analysis of MGMT promoter methylation: correlation with MGMT expression and clinical response in GBM. Shah, N. et al. PLoS ONE. 6, 2011.

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Rev. A