

## Product datasheet for **AP20557PU-S**

### MGMT Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500 - /1000. <b>Immunohistochemistry on paraffin sections</b> 1/50 - 1/200.
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of MGMT protein. (region surrounding Cys5)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 22 kDa
Gene Name:	O-6-methylguanine-DNA methyltransferase
Database Link:	<a href="#">Entrez Gene 4255 Human</a> <a href="#">P16455</a>



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**Background:**

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 down-regulates the basal MGMT promoter.

**Synonyms:**

Methylated-DNA-protein-cysteine methyltransferase

**Product images:**

Western blot (WB) analysis of MGMT antibody (Cat.-No.: [AP20557PU-N]) in extracts from Jurkat cells.