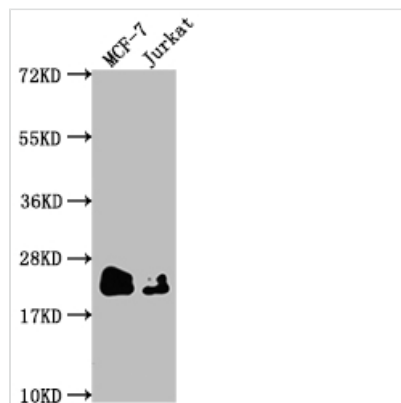




# MGMT Recombinant Monoclonal Antibody

<b>Product Code</b>	CSB-RA966553A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P16455
<b>Immunogen</b>	A synthesized peptide derived from human MGMT
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
<b>Relevance</b>	Involved in the cellular defense against the biological effects of O6-methylguanine (O6-MeG) in DNA. Repairs alkylated guanine in DNA by stoichiometrically transferring the alkyl group at the O-6 position to a cysteine residue in the enzyme. This is a suicide reaction: the enzyme is irreversibly inactivated.
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Epigenetics and Nuclear Signaling
<b>Gene Names</b>	MGMT
<b>Clone No.</b>	10G7

## Image



### Western Blot

Positive WB detected in: MCF-7 whole cell lysate, Jurkat whole cell lysate

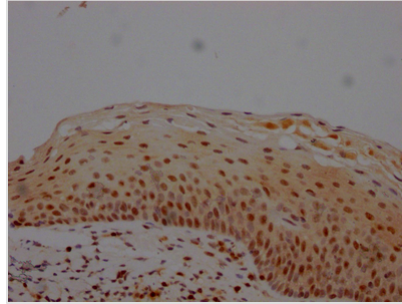
All lanes: MGMT antibody at 1:1500

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 22 kDa

Observed band size: 22 kDa



IHC image of CSB-RA966553A0HU diluted at 1:100 and staining in paraffin-embedded human tonsil tissue performed on a Leica Bond<sup>TM</sup> system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

## Description

MGMT is a DNA repair enzyme that repairs damaged guanine nucleotides by transferring the methyl at the O<sup>6</sup> site of guanine to its cysteine residues, thus preventing alkylating agents from causing gene mutation, cell death, and tumorigenesis. MGMT plays an important role in the resistance of tumor cells to alkylating agents, which are used in cancer treatment such as O<sup>6</sup>-alkylating agent-based chemotherapy due to their effective cytotoxic effects. Methylation of MGMT promoter enhances sensitivity to alkylating agents because DNA methylation can suppress transcription.

The main steps in the production of this MGMT recombinant antibody include immunization; harvest of positive spleen cells; obtaining the antibody sequence by screening and sequencing; expression of the target antibody in mammalian cells; purification. The MGMT antibody was produced recombinantly and has many advantages: high reproducibility, specificity and scalability. And has been validated in ELISA, WB, IHC.