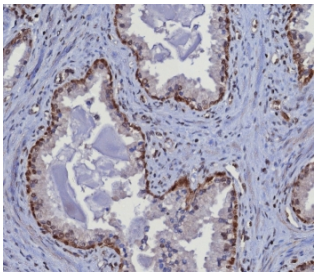
MGMT Antibody [clone MGMT/8364R] (V4130)

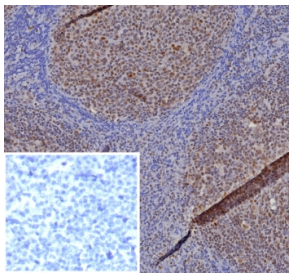
Catalog No.	Formulation	Size
V4130-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4130-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4130SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

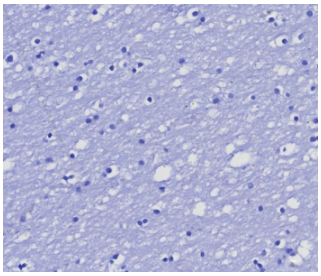
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Monoclonal (mouse origin)
Isotype	Rabbit IgG, kappa
Clone Name	MGMT/8364R
Purity	Protein A/G affinity
UniProt	P16455
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This MGMT antibody is available for research use only.



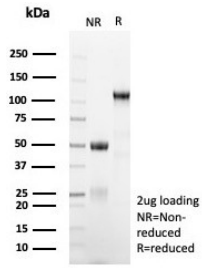
IHC staining of FFPE human prostate tissue with MGMT antibody (clone MGMT/8364R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



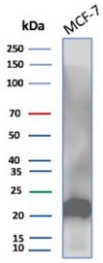
IHC staining of FFPE human tonsil tissue with MGMT antibody (clone MGMT/8364R). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Negative control: IHC testing of FFPE human brain tissue with MGMT antibody (clone MGMT/8364R) at 2ug/ml. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free MGMT antibody (clone MGMT/8364R) as confirmation of integrity and purity.



Western blot testing of human MCF7 cell lysate with MGMT antibody. Predicted molecular weight: ~23 kDa.

Description

Cancer chemotherapeutic alkylating agents (e.g. BCNU,) act by inducing formation of lethal cross-links at the O6-alkylguanine position in DNA. MGMT transfers alkyl adducts from the O6- position of guanine in DNA (prior to cross-link formation) to a cysteine residue in its own sequence, thereby restoring DNA to its intact state. This transfer inactivates the MGMT enzyme and is irreversible; hence the level of MGMT in a cell is directly proportional to the level of DNA damage it can tolerate. In normal tissues, MGMT acts as a suppressor of mutation and carcinogenesis. Tumors with high levels of MGMT are likely to be drug resistant.

Application Notes

Optimal dilution of the MGMT antibody should be determined by the researcher.

Immunogen

A recombinant partial protein (within amino acids 1-100) from the human protein was used as the immunogen for the MGMT antibody.

Storage

Aliquot the MGMT antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.