
anti-MGMT

Cat #: HM1227
Mouse monoclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

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, high MGMT activity was associated with the presence of mutant p53, in a study of oral cancer cell lines. 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.

SPECIFICITY

This antibody specifically reacts with MGMT of human origin.

The antibody can be used in Western blotting, immunoprecipitation and immunohistochemistry.

IMMUNOGEN

A synthetic peptide derived from C-terminus of human MGMT protein.

STORAGE

This antibody is stable for 12 months when stored at 2-8°C.

REFERENCES

1. Rydberg,B., Spurr,N. and Karran,P. (1990) cDNA cloning and chromosomal assignment of the human O⁶-methylguanine-DNA methyltransferase. cDNA expression in Escherichia coli and gene expression in human cells. J. Biol. Chem. 265, 9563-9569.
2. Tano,K., Shiota,S., Collier,J., Foote,R.S. and Mitra,S. (1990) Isolation and structural characterization of a cDNA clone encoding the human DNA repair protein for O⁶-alkylguanine. Proc. Natl. Acad. Sci. U.S.A. 87, 686-690.
3. Teo,A.K., Oh,H.K., Ali,R.B. and Li,B.F. (2001) The modified human DNA repair enzyme O(6)-methylguanine-DNA methyltransferase is a negative regulator of estrogen receptor-mediated transcription upon alkylation DNA damage. Mol. Cell. Biol. 21, 7105-7114.

4. Srivenugopal,K.S. and Ali-Osman,F. (2002) The DNA repair protein, O(6)-methylguanine-DNA methyltransferase is a proteolytic target for the E6 human papillomavirus oncoprotein. Oncogene 21, 5940-5945.

PRODUCT FROM HYPROMATRIX, INC.**A. AntibodyArray™s:**

1. Signal Transduction AntibodyArray™
Catalog Number HM3000
2. Apoptosis AntibodyArray™
Catalog Number HM4000
3. Cell Cycle AntibodyArray™
Catalog Number HM5000

B. Staining AntibodyArray™s

1. Staining AntibodyArray™ I
Catalog Number HM8100
2. AntibodyArray Staining Apparatus
Catalog Number HM8000

C. Antibodies**1. HRP-conjugated antibodies**

- anti-phosphotyrosine
Catalog Number HM2040
- anti-phosphoserine
Catalog Number HM2070
- anti-phosphothreonine
Catalog Number HM2090

and more...

2. Primary antibodies

Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at www.hypromatrix.com.

CONTACT

Hypromatrix, Inc.
100 Barber Avenue
Worcester, MA 01606
USA

Tel: 508-856-7900
Fax: 508-302-0748
Email: contact@hypromatrix.com
Web: www.hypromatrix.com