abcam

Product datasheet

Anti-MGMT antibody [MT3.1] ab39253

KO VALIDATED Recombinant

6 Abreviews 19 References 6 Images

Overview

Product name	Anti-MGMT antibody [MT3.1]
Description	Mouse monoclonal [MT3.1] to MGMT
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein corresponding to Human MGMT.
Positive control	IHC-P: Human tonsil, prostate carcinoma and lung carcinoma tissue. WB: MCF7, HeLa, Jurkat and HCT116 whole cell lysate. Wild type HAP1 whole cell lysate.
General notes	This product has switched from a hybridoma to recombinant production method on 02nd November 2020. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.3 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	MT3.1
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab39253 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ (1)	Use at an assay dependent concentration. Predicted molecular weight: 22 kDa.
IHC-P	★★★★☆ (1)	1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

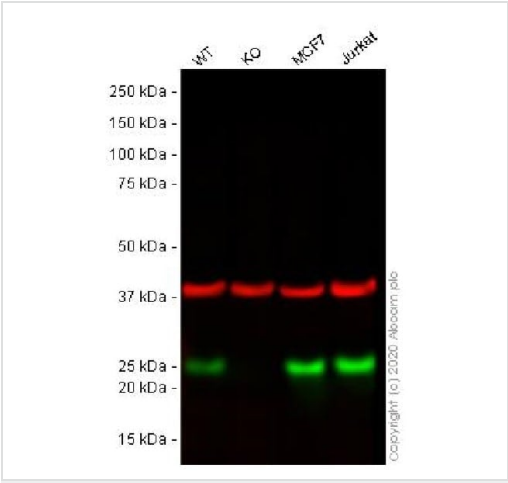
Target

Function 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.

Sequence similarities Belongs to the MGMT family.

Cellular localization Nucleus.

Images



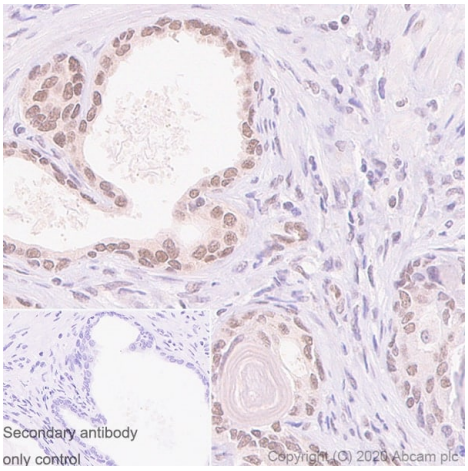
Western blot - Anti-MGMT antibody [MT3.1] (ab39253)

All lanes : Anti-MGMT antibody [MT3.1] (ab39253) at 1/500 dilution

Lane 1 : Wild type HAP1 whole cell lysate
Lane 2 : MGMT knockout HAP1 whole cell lysate
Lane 3 : MCF7 (human breast adenocarcinoma epithelial cell)
Lane 4 : Jurkat (human T cell leukemia T lymphocyte

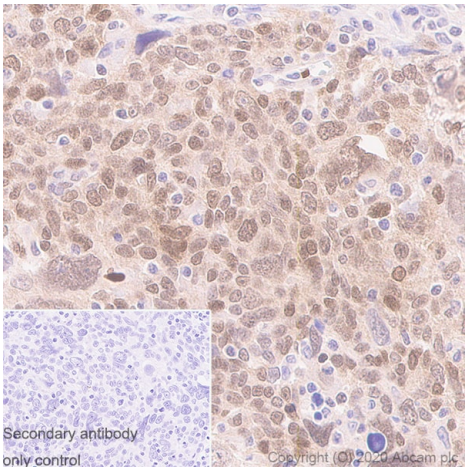
Lysates/proteins at 20 µg per lane.

Predicted band size: 22 kDa



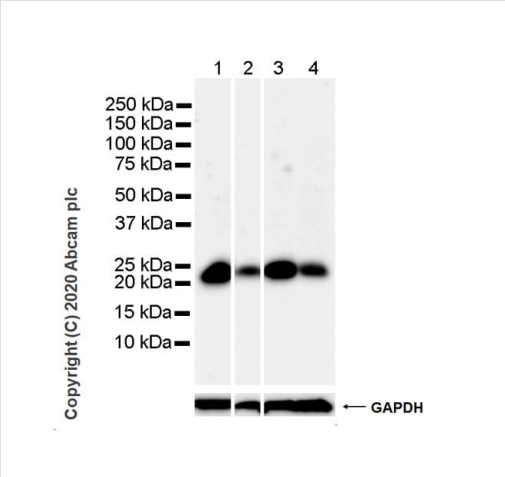
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MGMT antibody [MT3.1] (ab39253)

Immunohistochemical analysis of paraffin-embedded human prostate carcinoma tissue labeling MGMT with ab39253 at 1/200 followed by a ready to use secondary. Positive staining on human prostate carcinoma. The section was incubated with ab39253 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use secondary. Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MGMT antibody [MT3.1] (ab39253)

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue labeling MGMT with ab39253 at 1/200 followed by a ready to use secondary. Positive staining on human lung carcinoma. The section was incubated with ab39253 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use secondary. Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Western blot - Anti-MGMT antibody [MT3.1] (ab39253)

All lanes : Anti-MGMT antibody [MT3.1] (ab39253) at 1/500 dilution

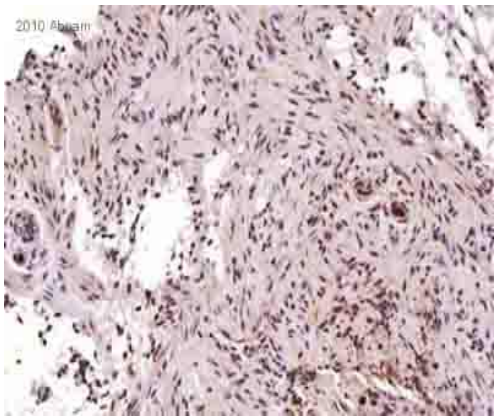
Lane 1 : MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate
Lane 2 : HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate
Lane 3 : Jurkat (human T cell leukemia T lymphocyte), whole cell lysate
Lane 4 : HCT116 (human colorectal carcinoma epithelial cell), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 22 kDa
Observed band size: 22 kDa

Exposure time: 92 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MGMT antibody [MT3.1] (ab39253)

This image is courtesy of an anonymous abreview.

ab39253 staining MGMT in human stomach tissue sections by Immunohistochemistry. Tissue was fixed with formaldehyde and a heat mediated antigen retrieval step was performed using 10mM citrate buffer pH6.0. Samples were then blocked with 5% serum for 1 hour at 23°C followed by incubation with the primary antibody, at a 1/100 dilution, for 1 hour at 23°C. An undiluted HRP-conjugated goat anti-mouse IgG polyclonal was used as secondary antibody.

This image was generated from the hybridoma version.

Western blot - Anti-MGMT antibody [MT3.1] (ab39253)

This image is courtesy of an anonymous Abreview

All lanes : Anti-MGMT antibody [MT3.1] (ab39253) at 1/500 dilution (for 16 hours at 4°C)

All lanes : Human OE33 cells - whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Rabbit Anti-Mouse IgG H&L (HRP) (**ab6728**) at 1/1000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 22 kDa
Observed band size: 21 kDa

Exposure time: 30 seconds

Blocking Step: 5% BSA for 1 hour at 23°C

This image was generated from the hybridoma version.

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