10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-MPG Antibody
Catalog # ABO11133

Specification

Anti-MPG Antibody - Product Information

Application	**WB**
Primary Accession	P29372
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for DNA-3-methyladenine glycosylase(MPG) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MPG Antibody - Additional Information

Gene ID 4350

Other Names
DNA-3-methyladenine glycosylase, 3.2.2.21, 3-alkyladenine DNA glycosylase, 3-methyladenine DNA glycosidase, ADPG, N-methylpurine-DNA glycosylase, MPG, AAG, ANPG, MID1

Calculated MW
32869 MW KDa

Application Details
Western blot, 0.1-0.5 μg/ml, Human, Rat, Mouse

Subcellular Localization
Cytoplasm . Mitochondrion matrix, mitochondrion nucleoid . Nucleus .

Protein Name
DNA-3-methyladenine glycosylase

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human MPG(228-243aa NKSFDQRDLAQDEAVW), different from the related mouse sequence by two amino acids, and from related rat sequence by one amino acid.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the DNA glycosylase MPG family.

Anti-MPG Antibody - Protein Information

Name MPG

Synonyms AAG, ANPG, MID1

Function
Hydrolysis of the deoxyribose N-glycosidic bond to excise 3- methyladenine, and 7-methylguanine from the damaged DNA polymer formed by alkylation lesions.

Cellular Location
Cytoplasm. Mitochondrion matrix, mitochondrion nucleoid. Nucleus

Anti-MPG Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-MPG Antibody - Images

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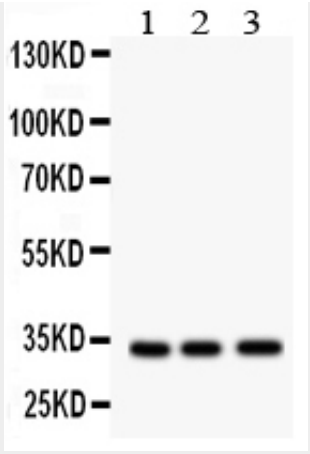

Anti- MPG antibody, ABO11133, Western blottingAll lanes: Anti MPG (ABO11133) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: JURKAT Whole Cell Lysate at 40ugPredicted bind size: 33KDObserved bind size: 33KD

Anti-MPG Antibody - Background

MPG(N-methylpurine-DNA glycosylase) also known as MDG, 3-METHYLADENINE DNA GLYCOSYLASE, 3MeAde DNA GLYCOSYLASE, AAG or APNG. The MPG gene is mapped to human chromosome 16 by analysis of a panel of DNAs from mouse/human and hamster/human hybrid cell lines.Â TheÂ MPGÂ gene was expressed in all cell lines and tissues examined, but was found at particularly high levels in a colon adenocarcinoma cell line(HT29). The completely characterized humanÂ MPGÂ gene was found to span 7 to 8 kb of genomic DNA and to be localized 75 kb upstream of the embryonic zeta-globin gene. To assess the contribution of Apng to the repair of several mutagenic lesions in vivo,Â Hang et al.(1997)Â biochemically analyzed cell-free extracts of tissues from mice with a targeted deletion of the Apng gene. Following treatment with DNA-methylating agents, increased persistence of 7-methylguanine(meG) was found in liver sections of APNG knockout mice in comparison with wildtype mice, demonstrating an in vivo phenotype for the APNG-null animals.