

**Anti-MPG Antibody**  
**Catalog # ABO11133****Specification**

---

**Anti-MPG Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P29372</a>
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<br>

**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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**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 reconstitution, 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.

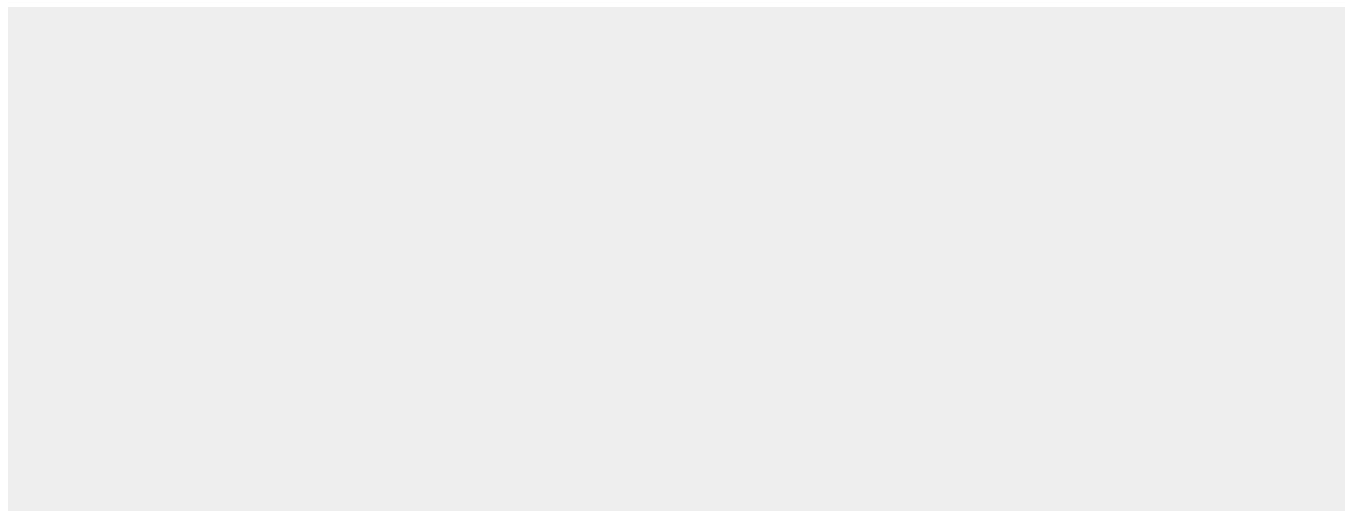
**Cellular Location**

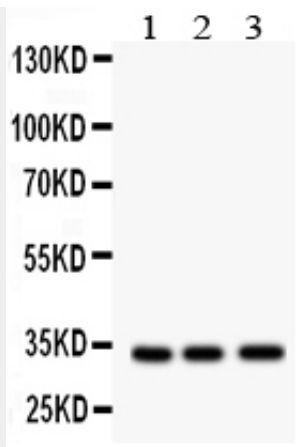
Cytoplasm. Mitochondrion matrix, mitochondrion nucleoid. Nucleus

**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 Cytometry](#)
- [Cell Culture](#)

**Anti-MPG Antibody - Images**



Anti- MPG antibody, ABO11133, Western blotting All lanes: Anti MPG (ABO11133) at 0.5ug/ml  
Lane 1: Rat Liver Tissue Lysate at 50ug  
Lane 2: HELA Whole Cell Lysate at 40ug  
Lane 3: JURKAT Whole Cell Lysate at 40ug  
Predicted bind size: 33KD  
Observed 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. The MPG 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 human MPG 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, Hang et al.(1997) 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.