

**MSH2 Antibody**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AP52824**

**Specification**

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**MSH2 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P43246</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG2b</b>
Calculated MW	<b>100 KDa</b>

**MSH2 Antibody - Additional Information**

**Gene ID** 4436

**Other Names**

BAT26;COCA 1;COCA1;DNA mismatch repair protein Msh2;FCC 1;FCC1;hMSH2;HNPCC 1;HNPCC;HNPCC1;LCFS2;MSH 2;Msh2;MSH2\_HUMAN;MutS homolog 2;MutS homolog 2 colon cancer nonpolyposis type 1;MutS protein homolog 2.

**Dilution**

WB~~1:1000

**Format**

Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**MSH2 Antibody - Protein Information**

**Name** MSH2

**Function**

Component of the post-replicative DNA mismatch repair system (MMR). Forms two different heterodimers: MutS alpha (MSH2-MSH6 heterodimer) and MutS beta (MSH2-MSH3 heterodimer) which binds to DNA mismatches thereby initiating DNA repair. When bound, heterodimers bend the DNA helix and shields approximately 20 base pairs. MutS alpha recognizes single base mismatches and dinucleotide insertion-deletion loops (IDL) in the DNA. MutS beta recognizes larger insertion-deletion loops up to 13 nucleotides long. After mismatch binding, MutS alpha or beta forms a ternary complex with the MutL alpha heterodimer, which is thought to be responsible for directing the downstream MMR events, including strand discrimination, excision, and resynthesis. Recruits DNA helicase MCM9 to chromatin which unwinds the mismatch containing DNA strand (PubMed:<a href="http://www.uniprot.org/citations/26300262">

target="\_blank">26300262</a>). ATP binding and hydrolysis play a pivotal role in mismatch repair functions. The ATPase activity associated with MutS alpha regulates binding similar to a molecular switch: mismatched DNA provokes ADP $\rightarrow$ ATP exchange, resulting in a discernible conformational transition that converts MutS alpha into a sliding clamp capable of hydrolysis-independent diffusion along the DNA backbone. This transition is crucial for mismatch repair. MutS alpha may also play a role in DNA homologous recombination repair. In melanocytes may modulate both UV-B-induced cell cycle regulation and apoptosis.

#### Cellular Location

Nucleus. Chromosome

#### Tissue Location

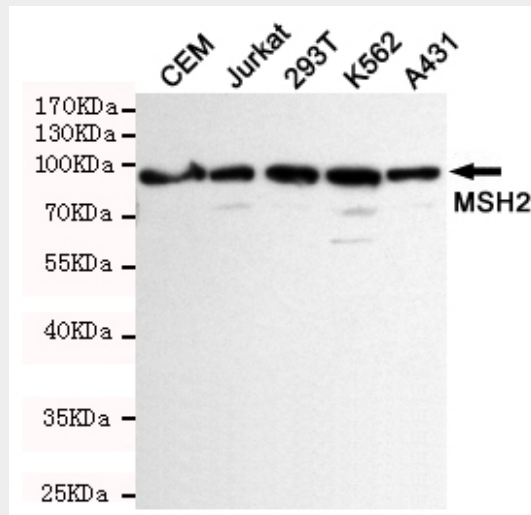
Ubiquitously expressed.

### MSH2 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](#)

### MSH2 Antibody - Images



Western blot detection of MSH2 in K562,CEM,Jurkat,293T and A431 cell lysates using MSH2 mouse mAb (1:1000 diluted).Predicted band size:100KDa.Observed band size:100KDa.

### MSH2 Antibody - Background

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### **MSH2 Antibody - References**

- Fishel R., et al. Cell 75:1027-1038(1993).
- Fishel R., et al. Cell 77:167-167(1994).
- Leach F.S., et al. Cell 75:1215-1225(1993).
- Kolodner R.D., et al. Genomics 24:516-526(1994).
- Wijnen J., et al. Am. J. Hum. Genet. 56:1060-1066(1995).