

## • Rabbit Anti-MSH2 Polyclonal Antibody

### Primary Antibodies

#### Background:

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. 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.

#### Source/Purification:

KLH conjugated synthetic peptide derived from human MSH-2 C-terminus. Was purified by Protein A and peptide affinity chromatography.

**Storage:** Prepared as lyophilized powder or liquid and shipped on ice. Store at -20°C for one year.

#### Reconstitution:

If the antibody is in liquid form, no reconstitution needed.

Reconstitution is only required for the lyophilized antibody. Please refer to the reconstitution instruction card in the package.

**Size:** 100ul or 100ug lyophilized

**Concentration:** 1ug/ul

**Host:** Rabbit

**Reactivities:** Human, Mouse, Rat,

#### Application:

- WB(1:100-500)
- ELISA(1:500-1000)
- IP(1:20-100)
- IHC-P(1:100-500)
- IHC-F(1:100-500)
- IF(1:100-500)
- Not yet tested in other applications.  
Optimal working dilutions must be determined by the end user.

**Antibody Type:** Polyclonal

**Isotype:** IgG

**Molecular Weight:** 104kDa

#### Preservatives:

10ug/ul BSA and 0.1% NaN<sub>3</sub>.

For research use only. CAUTION: Not for human or animal therapeutic or diagnostic use.