

MSH2 monoclonal antibody

Catalog: MB0152

Host: Mouse

Reactivity: Human

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 re-synthesis. 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 → 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.

Product:

Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol

Molecular Weight:

Predicted band size: 100KDa

Observed band size: 100KDa

Swiss-Prot:

P43246

Purification&Purity:

The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:500~1000

ICC: 1:50~200

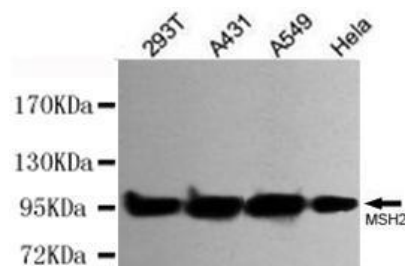
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

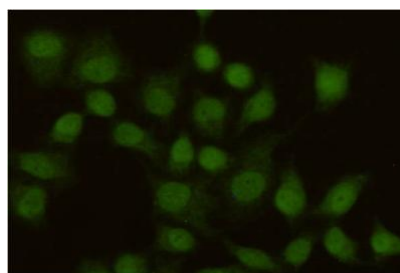
Specificity:

This antibody detects endogenous levels of MSH2 and does not cross-react with related proteins

DATA:



Western blot detection of MSH2 antibody in HeLa, A431, A549 and 293T cell lysates using MSH2 antibody (1:500 diluted).



Immunocytochemistry staining of HeLa cells using anti-MSH2 antibody (dilution 1:100).

Note:

For research use only, not for use in diagnostic procedure.

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PRODUCT DATA SHEET

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