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MSH2 Antibody (aa550-600)

Rabbit Polyclonal Antibody

Catalog # ALS12034

Specification

MSH2 Antibody (aa550-600) - Product Information

Application	**IHC**
Primary Accession	P43246
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**105kDa KDa**

MSH2 Antibody (aa550-600) - Additional Information

Gene ID 4436

Other Names
DNA mismatch repair protein Msh2, hMSH2, MutS protein homolog 2, MSH2

Target/Specificity
A portion of amino acids 550-600 of human MSH2 was used as the immunogen.

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
MSH2 Antibody (aa550-600) is for research use only and not for use in diagnostic or therapeutic procedures.

MSH2 Antibody (aa550-600) - 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:26300262). 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.

Cellular Location
Nucleus. Chromosome

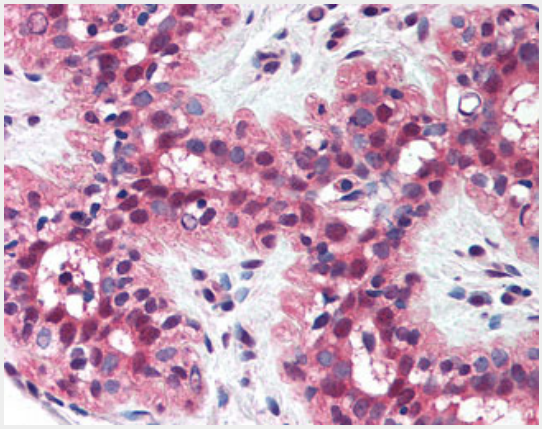
Tissue Location
Ubiquitously expressed.

MSH2 Antibody (aa550-600) - 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

MSH2 Antibody (aa550-600) - Images



Anti-MSH2 antibody IHC of human breast.

MSH2 Antibody (aa550-600) - Background

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MSH2 Antibody (aa550-600) - 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).