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MSH2
Rabbit Monoclonal antibody(Mab)
Catalog # AD80194

Specification

MSH2 - Product info

Application	**IHC-P, IHC**
Primary Accession	P43246
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Monoclonal**
Calculated MW	**104743**

MSH2 - Additional info

Gene ID	**4436**
Gene Name	**MSH2**

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

Dilution
IHC-P~~Ready-to-use
IHC~~Ready-to-use

Storage
Maintain refrigerated at 2-8°C

Precautions: **MSH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.**

MSH2 - 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,**

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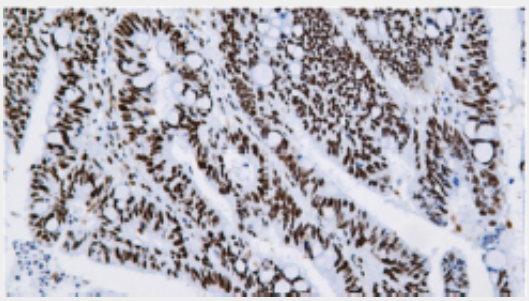
	MutS alpha or beta forms a ternary complex with the MutL alpha heterodimer, which is thought to be responsible for directing the downstream MMR events, including strand discrimination, excision, and resynthesis. Recruits DNA helicase MCM9 to chromatin which unwinds the mismatch containg DNA strand (PubMed:26300262). 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 - 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 - Images



Colon cancer

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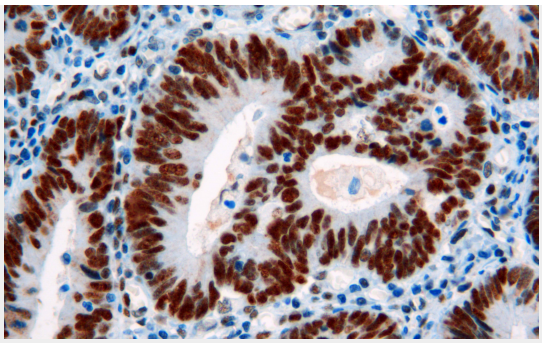

Immunohistochemical analysis of paraffin-embedded colorectal carcinoma; tissue using AD80194 performed on the Abcarta® FAIP-30 Fully automated IHC platform.Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(Ready-to-use) for 15 min at room temperature. AmpSeeTM Detection Systems□Abcepta:AR005□ was used as the secondary antibody.