



MSH₆

Rabbit Monoclonal antibody(Mab)
Catalog # AD80195

Specification

MSH6 - Product info

Application IHC-P, IHC
Primary Accession P52701
Reactivity Human
Host Rabbit
Clonality Monoclonal
Calculated MW 152786

MSH6 - Additional info

Gene ID **2956**

Gene Name MSH6 (<u>HGNC:7329</u>)

Other Names

DNA mismatch repair protein Msh6, MutS-alpha 160 kDa subunit, p160, MSH6 (HGNC:7329), GTBP

Dilution

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

Storage

Maintain refrigerated at 2-8°C

Precautions MSH6 Antibody is for research use only

and not for use in diagnostic or

therapeutic procedures.

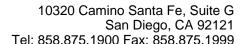
MSH6 - Protein Information

Name MSH6 (HGNC:7329)

Synonyms GTB

Function Component of the post-replicative DNA mismatch repair system (MMR).

Heterodimerizes with MSH2 to form MutS alpha, which binds to DNA mismatches thereby initiating DNA repair. When bound, MutS alpha bends the DNA helix and shields approximately 20 base pairs, and recognizes single base mismatches and dinucleotide insertion-deletion loops (IDL) in the DNA. After mismatch binding, 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-->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. Recruited on chromatin in G1 and early S phase via its PWWP domain that specifically binds trimethylated 'Lys-36' of histone H3 (H3K36me3): early recruitment to chromatin to be replicated allowing a quick identification of mismatch repair to initiate the DNA mismatch repair reaction. Nucleus, Chromosome, Note=Associates with H3K36me3 via its PWWP domain

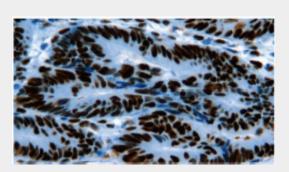
Cellular Location

MSH6 - Protocols

Provided below are standard protocols that you may find useful for product applications.

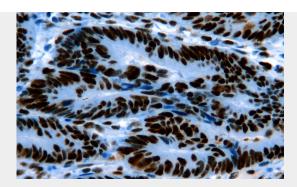
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MSH6 - Images



Colon cancer





Immunohistochemical analysis of paraffin-embedded colorectal carcinoma; tissue using AD80195 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.