10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MSH6

Rabbit Monoclonal antibody(Mab)
Catalog # AD80195

Product Information

Application	IHC-P
Primary Accession	P52701
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Clone Names	821G2C1
Calculated MW	152786

Additional Information

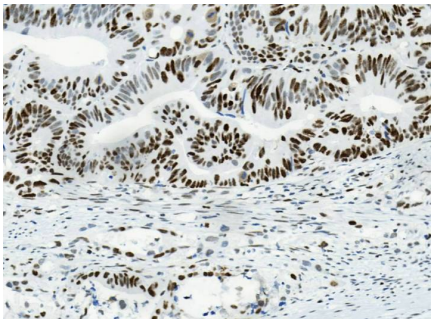
Gene ID	2956
Gene Name	MSH6 (HGNC:7329)
Other Names	DNA mismatch repair protein Msh6, MutS-alpha 160 kDa subunit, p160, MSH6 (HGNC:7329), GTBP
Dilution	IHC-P~~Ready-to-use
Storage	Maintain refrigerated at 2-8°C.
Precautions	MSH6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

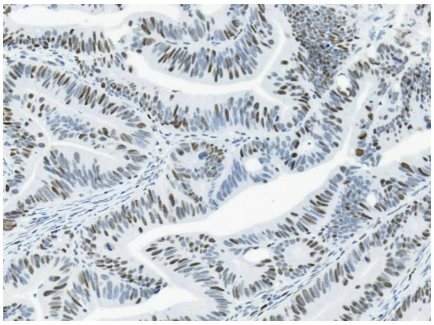
Name	MSH6 (HGNC:7329)
Synonyms	GTBP
Function	Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MSH2 to form MutS alpha, which binds to DNA mismatches thereby initiating DNA repair. When bound, MutS alpha bends the DNA helix and shields approximately 20 base pairs, 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.
Cellular Location	Nucleus. Chromosome. Note=Associates with H3K36me3 via its PWWP domain

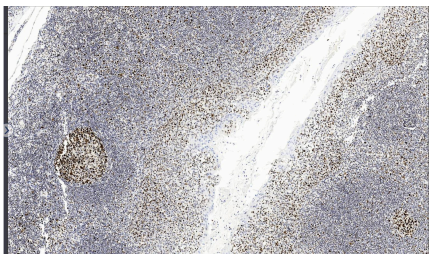
Images



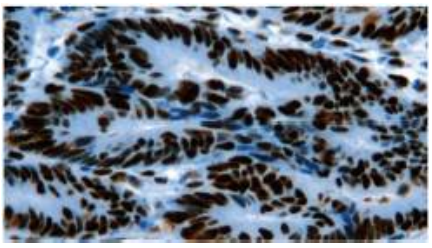
Immunohistochemical analysis of formalin-fixed and paraffin-embedded human colon carcinoma tissue was performed with MSH6 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.



Immunohistochemical analysis of formalin-fixed and paraffin-embedded human colon carcinoma tissue was performed with MSH6 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.



Immunohistochemical analysis of formalin-fixed and paraffin-embedded human tonsil tissue was performed with MSH6 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.



Immunohistochemical analysis of formalin-fixed and paraffin-embedded human colon carcinoma tissue was performed with MSH6 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.

Citations

- Expression and clinical significance of cytochrome b561 in endometrial cancer.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.