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PMS2

Rabbit Monoclonal antibody(Mab)
Catalog # AD80243

Product Information

Application	IHC-P
Primary Accession	P54278
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Clone Names	157G1F5
Calculated MW	95797

Additional Information

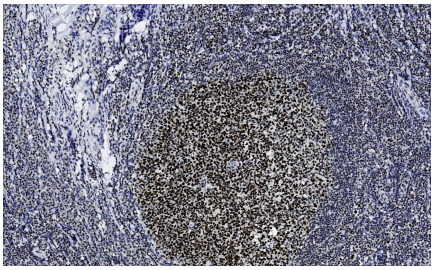
Gene ID	5395
Gene Name	PMS2 (HGNC:9122)
Other Names	Mismatch repair endonuclease PMS2, 3.1.-.-, DNA mismatch repair protein PMS2, PMS1 protein homolog 2, PMS2 (HGNC:9122)
Dilution	IHC-P~~Ready-to-use
Storage	Maintain refrigerated at 2-8°C.
Precautions	PMS2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

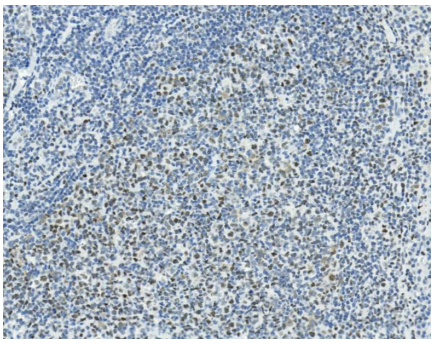
Name	PMS2 (HGNC:9122)
Function	Component of the post-replicative DNA mismatch repair system (MMR) (PubMed:30653781, PubMed:35189042). Heterodimerizes with MLH1 to form MutL alpha. DNA repair is initiated by MutS alpha (MSH2-MSH6) or MutS beta (MSH2-MSH3) binding to a dsDNA mismatch, then MutL alpha is recruited to the heteroduplex. Assembly of the MutL-MutS-heteroduplex ternary complex in presence of RFC and PCNA is sufficient to activate endonuclease activity of PMS2. It introduces single-strand breaks near the mismatch and thus generates new entry points for the exonuclease EXO1 to degrade the strand containing the mismatch. DNA methylation would prevent cleavage and therefore assure that only the newly mutated DNA strand is going to be corrected. MutL alpha (MLH1-PMS2) interacts physically with the clamp loader subunits of DNA polymerase III, suggesting that it may play a role to recruit the DNA polymerase III to the site of the MMR. Also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages. Possesses an ATPase activity, but in the absence of gross structural changes, ATP hydrolysis may not be necessary

	for proficient mismatch repair (PubMed:35189042).
Cellular Location	Nucleus

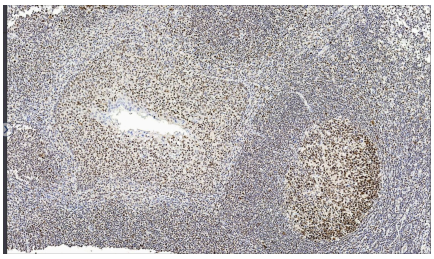
Images



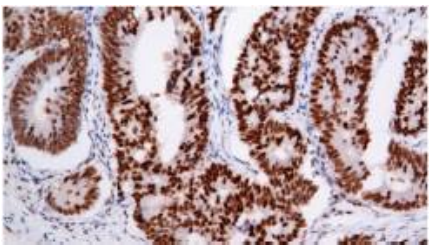
Immunohistochemical analysis of formalin-fixed and paraffin-embedded human tonsil tissue was performed with PMS2 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.



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Immunohistochemical analysis of formalin-fixed and paraffin-embedded human tonsil tissue was performed with PMS2 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 PMS2 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'.