

**MLH1**  
Rabbit Monoclonal antibody(Mab)  
Catalog # AD80242

## Specification

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### MLH1 - Product info

Application	IHC-P, IHC
Primary Accession	<a href="#">P40692</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Calculated MW	84601

### MLH1 - Additional info

Gene ID	4292
Gene Name	MLH1
<b>Other Names</b>	DNA mismatch repair protein Mlh1, MutL protein homolog 1, MLH1, COCA2

### Dilution

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

Storage	<b>This product is stored at 2-8 °C, please use it within the expiration date.</b>
Precautions	<b>MLH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.</b>

### MLH1 - Protein Information

**Name** MLH1

<b>Synonyms</b>	<b>COCA2</b>
<b>Function</b>	<b>Heterodimerizes with PMS2 to form MutL alpha, a component of the post-replicative DNA mismatch repair system (MMR). 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</b>

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. Heterodimerizes with MLH3 to form MutL gamma which plays a role in meiosis.

Cellular Location

**Nucleus. Chromosome. Note=Recruited to chromatin in a MCM9-dependent manner.**

Tissue Location

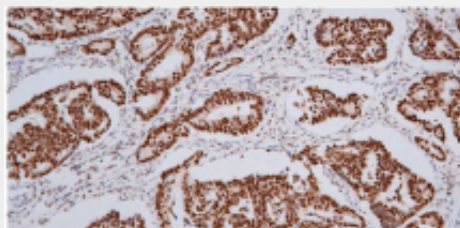
**Colon, lymphocytes, breast, lung, spleen, testis, prostate, thyroid, gall bladder and heart**

### MLH1 - Protocols

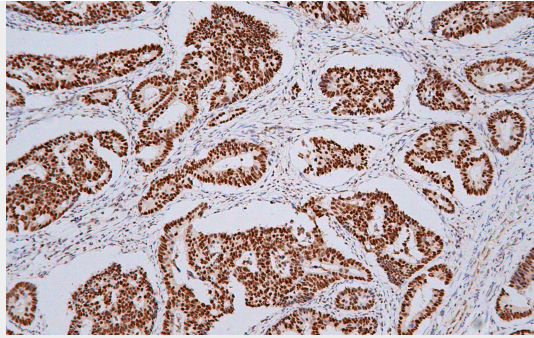
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### MLH1 - Images



Colon cancer



Immunohistochemical analysis of paraffin-embedded esophageal squamous cell carcinomas tissue using AD80242 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. AmpSee™ Detection Systems [Abcepta:AR005] was used as the secondary antibody.