

**MLH1**  
**Rabbit Monoclonal antibody(Mab)**  
**Catalog # AD80242****Specification****MLH1 - Product info**

|                   |                        |
|-------------------|------------------------|
| Application       | IHC-P                  |
| 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

**Storage**

Maintain refrigerated at 2-8°C

**Precautions**

**MLH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.**

**MLH1 - Protein Information****Name** MLH1**Synonyms**

Function

**COCA2**

**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**

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

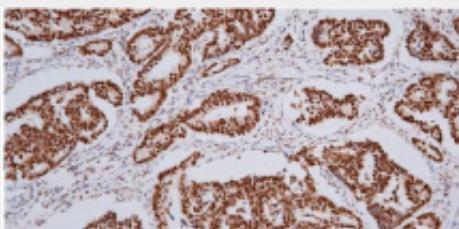
Nucleus. Chromosome. Note=Recruited to chromatin in a MCM9-dependent manner. Colon, lymphocytes, breast, lung, spleen, testis, prostate, thyroid, gall bladder and heart

### MLH1 - Protocols

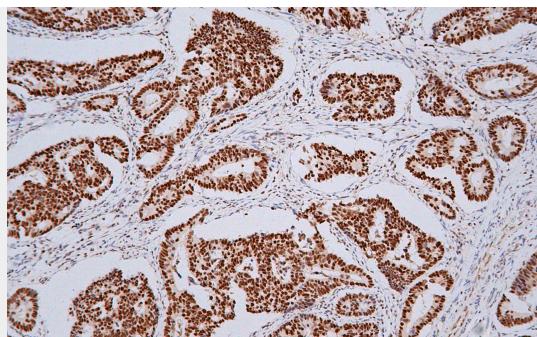
Provided below are standard protocols that you may find useful for product applications.

- [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. AmpSeeTM Detection Systems Abcepta:AR005 was used as the secondary antibody.