

MLH1
Rabbit Monoclonal antibody(Mab)
Catalog # AD80242

Specification

MLH1 - Product info

Application	IHC-P, IHC
Primary Accession	P40692
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Calculated MW	84601

MLH1 - Additional info

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

Dilution

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

Storage	This product is stored at 2-213 °C, please use it within the expiration date.
Precautions	MLH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MLH1 - Protein Information

Name MLH1

Synonyms	COCA2
Function	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.

Tissue Location

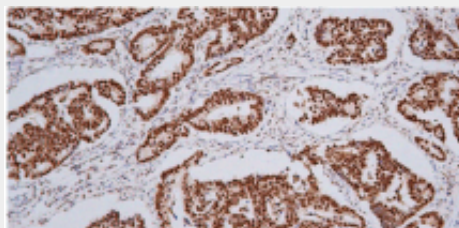
Colon, lymphocytes, breast, lung, spleen, testis, prostate, thyroid, gall bladder and heart

MLH1 - Protocols

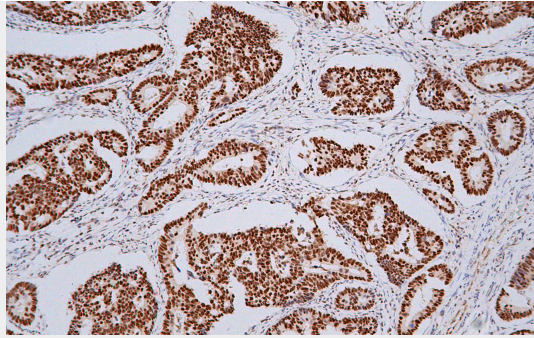
Provided below are standard protocols that you may find useful for product applications.

- [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.