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MLH1
Rabbit Monoclonal antibody(Mab)
Catalog # AD80242

Specification

MLH1 - Product info

Application	**IHC-P**
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

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	**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**

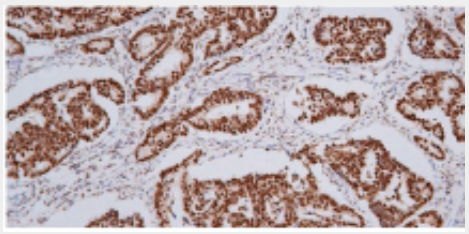
	strand containing the mismatch. DNA methylation would prevent cleavage and therefore assure that only the newly mutated DNA strand is going to be corrected. MutL alpha (MLH1-PMS2) interacts physically with the clamp loader subunits of DNA polymerase III, suggesting that it may play a role to recruit 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 Cytomety
- Cell Culture

MLH1 - Images



Colon cancer

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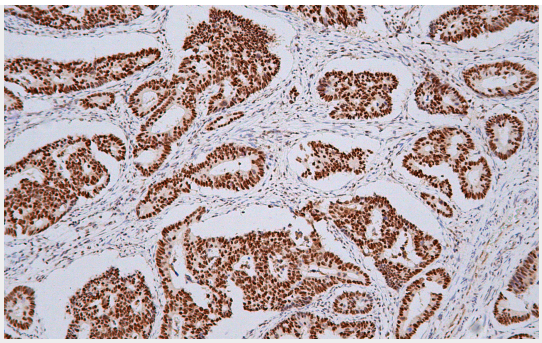

Immunohistochemical analysis of paraffin-embedded esophageal squamous cell carcinomas tissue using AD80242 performed on the Abcarta® FAIP-30 Fully automated IHC platform.Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples 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.