10320 Camino Santa Fe, Suite G
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Anti-MLH1 Rabbit Monoclonal Antibody
Catalog # ABO13309

Specification

Anti-MLH1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, IP, FC**
Primary Accession	P40692
Host	**Rabbit**
Isotype	**Rabbit IgG**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-MLH1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Anti-MLH1 Rabbit Monoclonal Antibody - Additional Information

Gene ID 4292

Other Names
DNA mismatch repair protein Mlh1, MutL protein homolog 1, MLH1, COCA2

Calculated MW
84601 MW KDa

Application Details
WB 1:500-1:2000
IHC 1:50-1:200
ICC/IF 1:50-1:200
IP 1:50
FC 1:50

Subcellular Localization
Nucleus.

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

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human MLH1

Purification
Affinity-chromatography

Storage	**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

Anti-MLH1 Rabbit Monoclonal Antibody - 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

Anti-MLH1 Rabbit Monoclonal Antibody - 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

Anti-MLH1 Rabbit Monoclonal Antibody - Images

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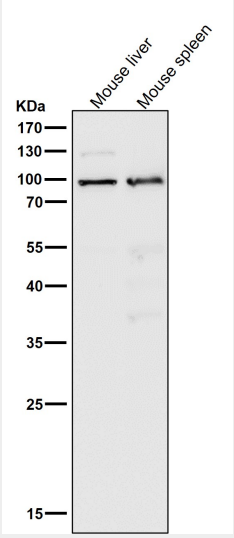
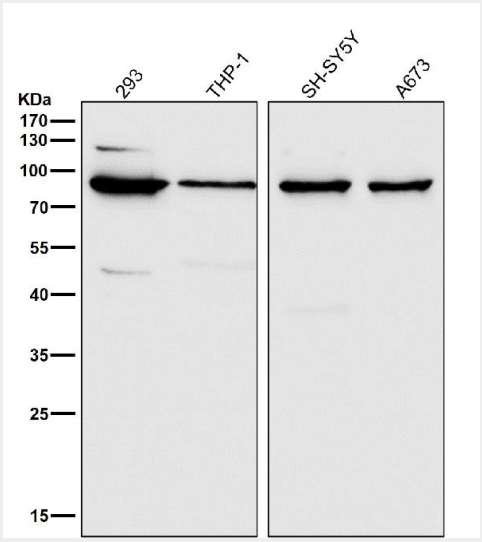


All lanes use the Antibody at 1:1W dilution for 1 hour at room temperature.



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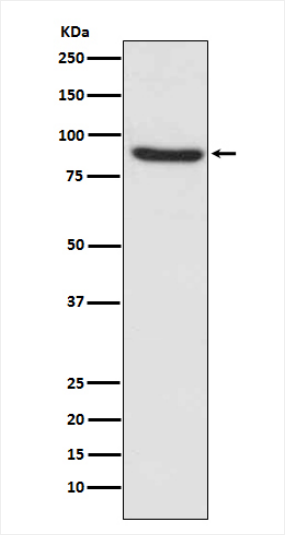

Western blot analysis of MLH1 in 293T cell lysate.

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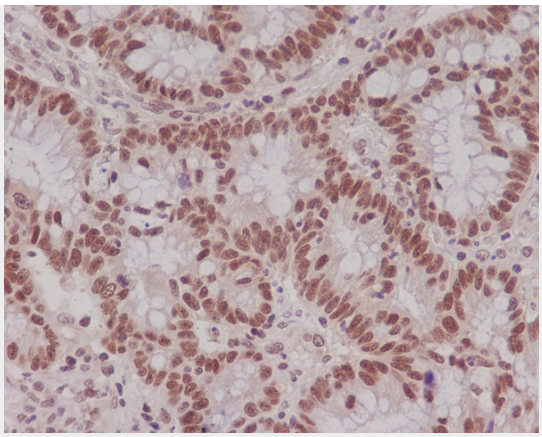

Immunohistochemical analysis of paraffin-embedded human colon, using MLH1 Antibody.