

**MLH1 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7464b**

### Specification

#### MLH1 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	<a href="#">P40692</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	84601

#### MLH1 Antibody (C-term) - Additional Information

##### Gene ID 4292

##### Other Names

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

##### Target/Specificity

This MLH1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-term region of human MLH1.

##### Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

##### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

##### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

##### Precautions

MLH1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

#### MLH1 Antibody (C-term) - 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

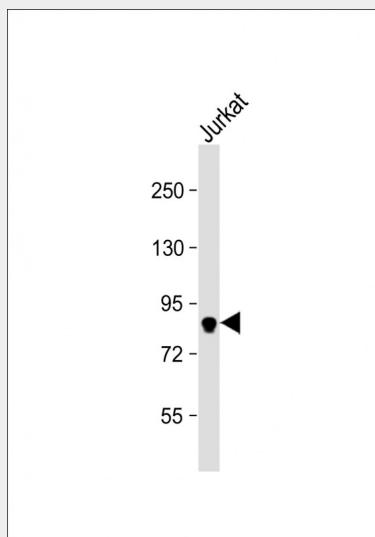
Colon, lymphocytes, breast, lung, spleen, testis, prostate, thyroid, gall bladder and heart

#### MLH1 Antibody (C-term) - 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 Antibody (C-term) - Images



Anti-MLH1 Antibody (C-term) at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 85 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### **MLH1 Antibody (C-term) - Background**

MLH1 was identified as a locus frequently mutated in hereditary nonpolyposis colon cancer (HNPCC). The protein is a human homolog of the *E. coli* DNA mismatch repair gene *mutL*, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC.

### **MLH1 Antibody (C-term) - References**

Bronner C.E., Baker S. *Nature* 368:258-261(1994)  
Kolodner R.D., Hall N. *Cancer Res.* 55:242-248(1995)  
Han H.-J., Maruyama M. *Hum. Mol. Genet.* 4:237-242(1995)  
Bellacosa A. *Proc. Natl. Acad. Sci. U.S.A.* 96:3969-3974(1999)