

For Research Use Only

# MLH1 Monoclonal antibody

Catalog Number: 67350-1-Ig **Featured Product**



## Basic Information

<b>Catalog Number:</b> 67350-1-Ig	<b>GenBank Accession Number:</b> BC006850	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 2100 µg/ml	<b>GeneID (NCBI):</b> 4292	<b>CloneNo.:</b> 2F12C4
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P40692	<b>Recommended Dilutions:</b> WB 1:5000-1:50000
<b>Isotype:</b> IgG2a	<b>Full Name:</b> mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli)	
<b>Immunogen Catalog Number:</b> AG27723	<b>Calculated MW:</b> 756 aa, 85 kDa	
	<b>Observed MW:</b> 85-100 kDa, 40-45 kDa	

## Applications

<b>Tested Applications:</b> WB, ELISA	<b>Positive Controls:</b> WB: A431 cells, HeLa cells, Caco-2 cells, COLO 320 cells, HEK-293 cells, Jurkat cells
<b>Species Specificity:</b> Human, rat	

## Background Information

MLH1, also named as COCA2, belongs to the DNA mismatch repair mutL/hexB family. It heterodimerizes with PMS2 to form MutL alpha which is a component of the post-replicative DNA mismatch repair system (MMR). 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. MLH1 also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages. MLH1 heterodimerizes with MLH3 to form MutL gamma which plays a role in meiosis. (PMID: 16873062, PMID: 18206974) Defects in MLH1 are the cause of hereditary non-polyposis colorectal cancer type 2 (HNPCC2). Defects in MLH1 are a cause of mismatch repair cancer syndrome (MMRCS). Defects in MLH1 are a cause of Muir-Torre syndrome (MTS). Defects in MLH1 are a cause of susceptibility to endometrial cancer. Western blot analysis with an MLH1 antibody detected a 85-100 kDa band. Full-length human MLH1 is specifically cleaved into degradation products of 40-45 kDa by caspase-3 (PMID: 15087450, PMID: 19603033). This antibody is specific to MLH1.

## Storage

**Storage:**  
Store at -20°C.  
**Storage Buffer:**  
PBS with 0.1% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

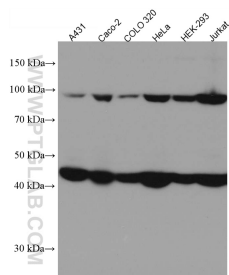
T: 4006900926

E: Proteintech-CN@ptglab.com

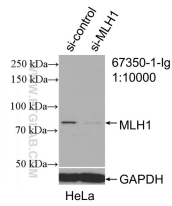
W: ptgcn.com

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## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 67350-1-Ig (MLH1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



WB result of MLH1 antibody (67350-1-Ig; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MLH1 transfected HeLa cells.