

For Research Use Only

# MLH1 Recombinant antibody

Catalog Number: 84208-2-RR



## Basic Information

<b>Catalog Number:</b> 84208-2-RR	<b>GenBank Accession Number:</b> BC006850	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 4292	<b>CloneNo.:</b> 241472D1
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P40692	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate IHC 1:125-1:500 IF/ICC 1:150-1:600
<b>Isotype:</b> IgG	<b>Full Name:</b> mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli)	
<b>Immunogen Catalog Number:</b> AG2319	<b>Calculated MW:</b> 756 aa, 85 kDa	
	<b>Observed MW:</b> 85-100 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, IP, ELISA

**Species Specificity:**  
human

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB :** HeLa cells, Jurkat cells, HEK-293 cells, A431 cells, SW480 cells

**IP :** HeLa cells,

**IHC :** human colon cancer tissue,

**IF/ICC :** HeLa cells,

## 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.

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

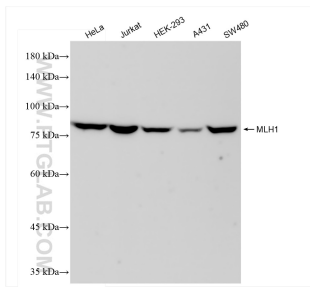
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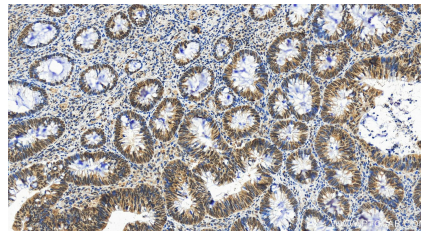
E: proteintech@ptglab.com  
W: ptglab.com

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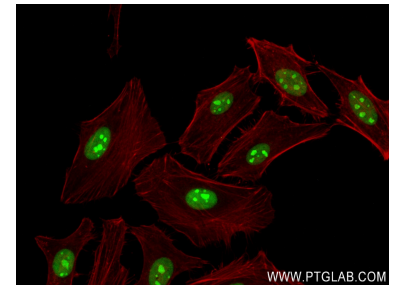
## Selected Validation Data



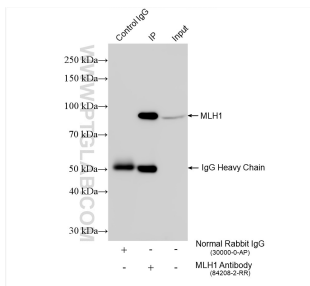
Various lysates were subjected to SDS PAGE followed by western blot with 84208-2-RR (MLH1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



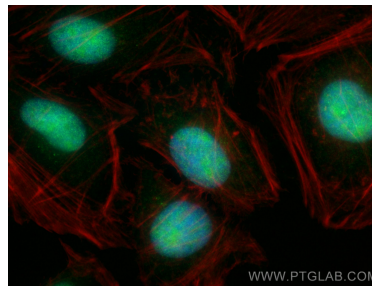
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 84208-2-RR (MLH1 antibody) at dilution of 1:250 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



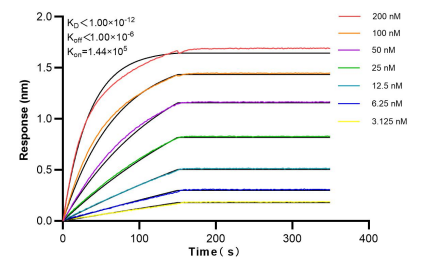
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using MLH1 antibody (84208-2-RR, Clone: 241472D1) at dilution of 1:300 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



IP result of anti-MLH1 (IP: 84208-2-RR, 4ug; Detection: 84208-2-RR 1:1000) with HeLa cells lysate 1200 ug.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using MLH1 antibody (84208-2-RR, Clone: 241472D1) at dilution of 1:300 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red).



Bi-layer interferometry (BLI) kinetic assays of 84208-2-RR against Human MLH1 were performed. The affinity constant is below 1 pM.