For Research Use Only

MLH1 Recombinant antibody

Catalog Number:84208-2-RR

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Uni-rAb
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Basic Information

Catalog Number:
84208-2-RR

Size:
1000 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG2319

GenBank Accession Number:
BC006850

GeneID (NCBI):
4292

UNIPROT ID:
P40692

Full Name:
mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli)

Calculated MW:
756 aa, 85 kDa

Observed MW:
85-100 kDa

Purification Method:
Protein A purification

CloneNo.:
241472D1

Recommended Dilutions:
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

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

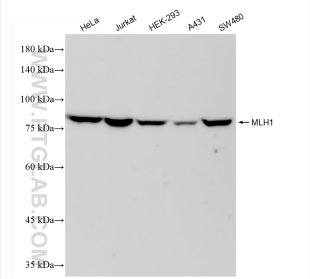
MLH1, also named as COCA2, belongs to the DNA mismatch repair mutL/hexB family. It heterodimerizes with PMS2 to form MutL alpha which is a component of the post-replicative DNA mismatch repair system (MMR). MutL alpha (MLH1-PMS2) interacts physically with the clamp loader subunits of DNA polymerase III, 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

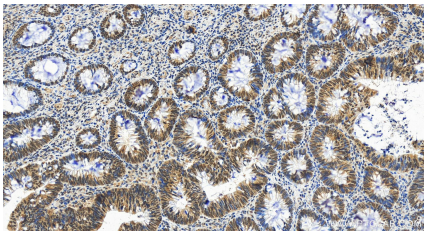
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

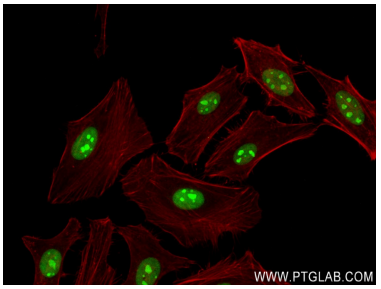
Selected Validation Data



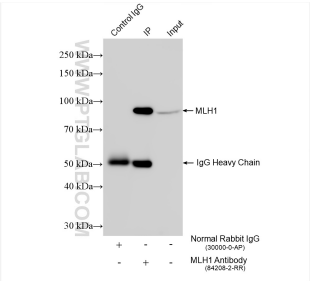
Various lysates were subjected to SDS PAGE followed by western blot with 84208-2-RR (MLH1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



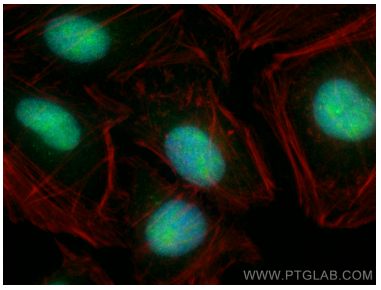
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 84208-2-RR (MLH1 antibody) at dilution of 1:250 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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.



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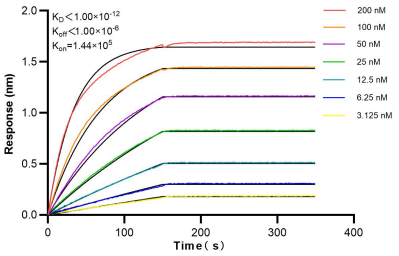

Biolayer interferometry (BLI) kinetic assays of 84208-2-RR against Human MLH1 were performed. The affinity constant is below 1 pM.