

For Research Use Only

MLH1 Polyclonal antibody

Catalog Number: 11697-1-AP

Featured Product

13 Publications



Basic Information

Catalog Number:

11697-1-AP

Size:

150ul, Concentration: 700 µg/ml by Nanodrop and 400 µg/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG2319

GenBank Accession Number:

BC006850

GeneID (NCBI):

4292

Full Name:

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

Calculated MW:

756 aa, 85 kDa

Observed MW:

85 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:1000

IP 0.5-4.0 ug for IP and 1:500-1:1000 for WB

IF 1:50-1:500

Applications

Tested Applications:

IF, IP, WB, ELISA

Cited Applications:

CoIP, IF, IHC, WB

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, zebrafish

Positive Controls:

WB : A431 cells, HEK-293 cells, HeLa cells, Jurkat cells, human testis tissue

IP : HeLa cells,

IF : 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. 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.

Notable Publications

Author	Pubmed ID	Journal	Application
Jun Zhu	32396667	J Surg Oncol	IHC
Dazhang Bai	33949657	Hum Mol Genet	WB
Zhiyan Hu	32370786	J Exp Clin Cancer Res	IHC, CoIP, IF

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

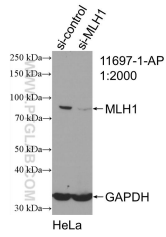
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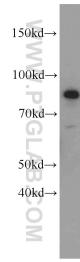
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

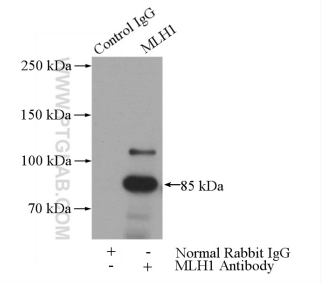
Selected Validation Data



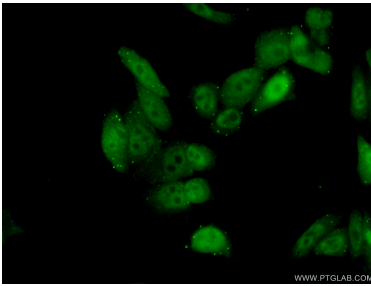
WB result of MLH1 antibody (11697-1-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MLH1 transfected HeLa cells.



A431 cells were subjected to SDS PAGE followed by western blot with 11697-1-AP (MLH1 antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



IP Result of anti-MLH1 (IP:11697-1-AP, 3ug; Detection:11697-1-AP 1:500) with HeLa cells lysate 3200ug.



Immunofluorescent analysis of (10% Formaldehyde) fixed HeLa cells using 11697-1-AP (MLH1 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).