For Research Use Only

## MLH1 Monoclonal antibody, PBS Only proteintech

Catalog Number: 67350-1-PBS

**Featured Product** 



**Purification Method:** 

CloneNo.:

2F12C4

Protein A purification

**Basic Information** 

Catalog Number: 67350-1-PBS

GenBank Accession Number: BC006850

100ug, Concentration: 1 mg/ml by

Nanodrop:

Mouse

Isotype: IgG2a

Immunogen Catalog Number:

AG27723

Calculated MW: 756 aa. 85 kDa Observed MW:

GeneID (NCBI):

**UNIPROT ID:** P40692

Full Name:

85-100 kDa, 40-45 kDa

mutL homolog 1, colon cancer,

nonpolyposis type 2 (E. coli)

**Applications** 

**Tested Applications:** 

WB, Indirect ELISA

Species Specificity:

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

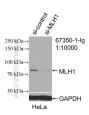
Storage:

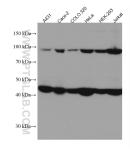
Store at -80°C

Storage Buffer:

PBS Only

## **Selected Validation Data**





WB result of MLH1 antibody (67350-1-lg; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MLH1 transfected HeLa cells. This data was developed using the same antibody clone with 67350-1-PBS in a different storage buffer formulation.

Various lysates were subjected to SDS PAGE followed by western blot with 67350-1-lg (MLH1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67350-1-PBS in a different storage buffer formulation.