

MLH1 Rabbit mAb

Catalog # AP74898

Product Information

Application WB, IP, ICC P40692 **Primary Accession**

Human, Mouse, Rat Reactivity

Host

Clonality Monoclonal Antibody

Calculated MW 84601

Additional Information

Gene ID 4292

Other Names MLH1

Dilution WB~~1/500-1/1000 IP~~N/A ICC~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

Protein Information

MLH1 Name

Synonyms COCA2

Function Heterodimerizes with PMS2 to form MutL alpha, a component of the

> post-replicative DNA mismatch repair system (MMR). DNA repair is initiated by MutS alpha (MSH2-MSH6) or MutS beta (MSH2-MSH3) binding to a dsDNA mismatch, then MutL alpha is recruited to the heteroduplex. Assembly of the MutL-MutS-heteroduplex ternary complex in presence of RFC and PCNA is

sufficient to activate endonuclease activity of PMS2. It introduces

single-strand breaks near the mismatch and thus generates new entry points for the exonuclease EXO1 to degrade the strand containing the mismatch. DNA methylation would prevent cleavage and therefore assure that only the newly mutated DNA strand is going to be corrected. 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. Also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages. Heterodimerizes with MLH3 to form MutL gamma which plays a

role in meiosis.

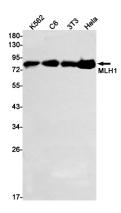
Cellular Location Nucleus. Chromosome. Note=Recruited to chromatin in a MCM9- dependent

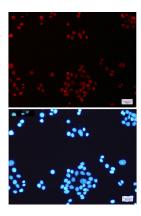
manner.

Tissue Location Colon, lymphocytes, breast, lung, spleen, testis, prostate, thyroid, gall bladder

and heart

Images





Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.