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MLH1 Rabbit mAb

Catalog # AP75725

Product Information

Primary Accession	P40692
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	84601

Additional Information

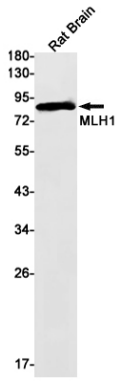
Gene ID	4292
Other Names	MLH1
Format	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	MLH1
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



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