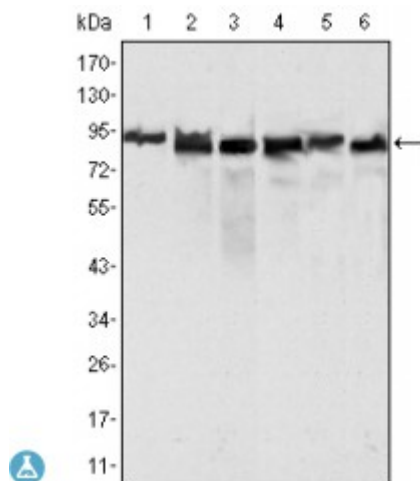


Anti-MLH1 antibody



Description	Mouse monoclonal to MLH1.
Model	STJ98245
Host	Mouse
Reactivity	Human, Simian
Applications	ELISA, IF, IHC, WB
Immunogen	Purified recombinant fragment of MLH1 (aa381-483) expressed in E. Coli.
Immunogen Region	381-483aa
Gene ID	4292
Gene Symbol	MLH1
Dilution range	WB 1:500-1:2000IHC 1:200-1:1000IF 1:200-1:1000ELISA 1:10000
Specificity	MLH1 Monoclonal Antibody detects endogenous levels of MLH1 protein.
Tissue Specificity	Colon, lymphocytes, breast, lung, spleen, testis, prostate, thyroid, gall bladder and heart.
Purification	Affinity purification
Clone ID	4C9C7
Note	For Research Use Only (RUO).
Protein Name	DNA mismatch repair protein Mlh1 MutL protein homolog 1
Clonality	Monoclonal
Conjugation	Unconjugated

Isotype	IgG1
Formulation	Ascitic fluid containing 0.03% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:7127OMIM:114500
Alternative Names	DNA mismatch repair protein Mlh1 MutL protein homolog 1
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-MSH6) 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 Localization	Nucleus