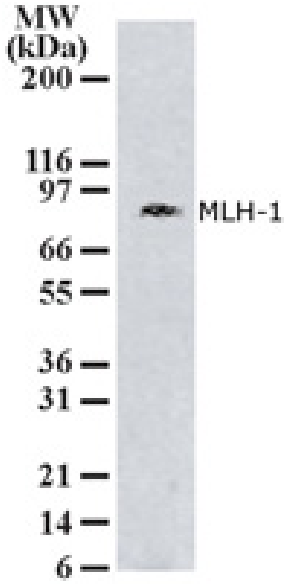
MLH-1 antibody (mAb)

Catalog No: 39219
RRID: AB_2793189
Clone: 164C819
Application(s): WB
Reactivity: Human

Quantity: 100 µg
Purification: Affinity Purified
Host: Mouse
Isotype: IgG
Concentration: 0.5 µg/µl
Molecular Weight: 83 kDa

Background: MLH-1 (COCA2 or HNPCC) 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 the presence of RFC and PCNA is sufficient to activate endonuclease activity of PMS2. MLH-1 (COCA2 or HNPCC) 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 ensure that only the newly mutated DNA strand will 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. MLH-1 is implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in the case of major DNA damages. MLH-1 heterodimerizes with MLH-3 to form MutL gamma which plays a role in meiosis.



MLH-1 mAb tested by Western blot.
The analysis was performed using Molt-4 whole-cell extract and MLH-1 mAb at a 2 µg/ml dilution.

Immunogen: This MLH-1 antibody was raised against a synthetic peptide corresponding to human MLH-1.

Buffer: PBS containing 0.02% sodium azide. Sodium azide is highly toxic.

Application Notes:
Applications Validated by Active Motif:
WB: 2 - 3 µg/ml dilution

For optimal results, primary antibody incubations should be performed at room temperature. The addition of 0.1% Tween 20 to all blocking solutions may also reduce background. Individual optimization may be required.

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Store at 4°C for short term. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.