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MLH1 (N) Antibody, Rabbit Polyclonal

Cat#: R2108-3

Quantity: 100 ul

Predicted | Observed M.W.: 85 kDa

Lot#: Refer to vial

Application: WB

Uniprot ID: Q9JK91

Background:

MutL protein homolog 1 (MLH1) is a nuclear protein that belongs to the DNA mismatch repair MutL/HexB family. MLH1 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. MLH1 is also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages.

Other Names:

DNA mismatch repair protein Mlh1, MutL protein homolog 1

Source and Purity:

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing N-terminal region of mouse MLH1. Antibodies were purified by affinity purification using immunogen.

Storage Buffer and Condition:

Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN₃. Store at -20 °C. Stable for 6 months from date of receipt.

Tested Applications:

WB: 1:1,000-1:3,000 (detect endogenous protein*)

*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

Species Specificity:

Human, Mouse

Product Data:

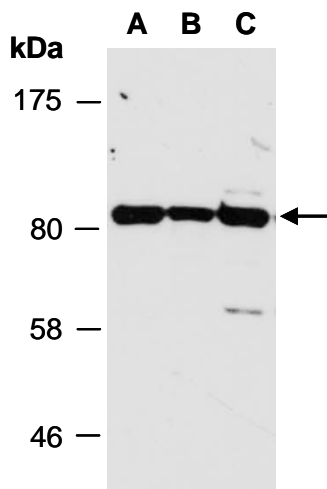


Fig 1. Western blot of total cell extracts from (A) mouse brain, (B) mouse thymus, (C) human HeLa; using anti-MLH1 (N) (R2108-3) at RT for 2 h.