MLH1 Mouse Monoclonal Antibody

E10-20246

Background: DNA-mismatch repair (MMR), a conserved process that involves correcting errors made during DNA synthesis, is crucial to the maintenance of genomic integrity. Lack of a functional DNA-mismatch repair pathway is a common characteristic of several different types of human cancers, either due to an MMR gene mutation or promoter-methylation gene silencing. MLH1 is a human homolog of the E. coli DNA mismatch repair gene mutL, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in hereditary nonpolyposis colon cancer (HNPCC). MLH1 is an integral part of the protein complex responsible for mismatch repair expressed in lymphocytes, heart, colon, breast, lung, spleen, testis, prostate, thyroid and gall bladder, and is methylated in several ovarian tumors. Loss of MLH1 protein expression is associated with a mutated phenotype, microsatellite instability and a predisposition to cancer.

Catalog Number: E10-20246

Amount: 100µg/100µl

Clone Number: 4C9C7

Species: Mouse IgG1

MW: 85kDa

Aliases: FCC2; COCA2; HNPCC

Entrez Gene: 4296

Immunogen: Purified recombinant fragment of ABL1 (aa577-650) expressed in E. Coli.

Storage: Store at 4 °C after thawing. For long term storage, store at -20 °C.

Formulation: Ascitic fluid containing 0.03% sodium azide.

Species Reactivities: Human; Monkey

Tested Applications: WB,IHC,IF,ELISA. Not yet tested in other applications. Determining optimal working dilutions by titration test.

Application notes: WB.1/500 - 1/2000.IHC.1/200 - 1/1000. IF.1/200 - 1/1000. ELISA. Propose dilution 1/10000.

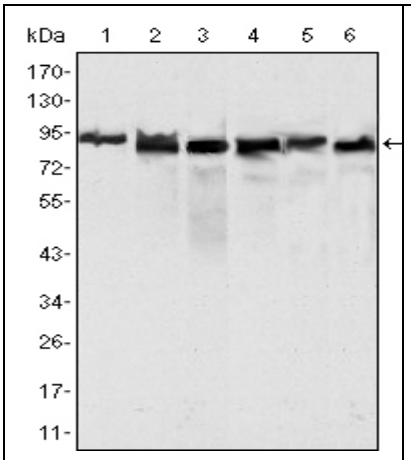

Figure 1. Western blot analysis using MLH1 mouse mAb against Hela (1), MCF-7 (2) and A549 (3), Jurkat (4), 2R75 (5) and COS (6) cell lysate.

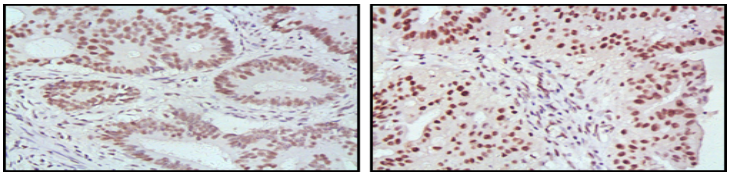

Figure 2. Immunohistochemical analysis of paraffin-embedded human rectum cancer (left) and ovarian cancer (right) tissues, showing nuclear localization with DAB staining using MLH1 mouse mAb.

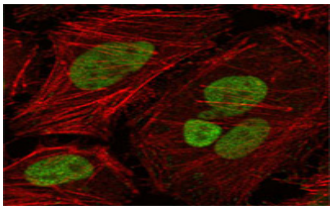

Figure 3. Confocal immunofluorescence analysis of Hela cells using MLH1 mouse mAb (green), showing nuclear localization. Red. Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

For Research Use Only