产品名称：MLH1 (18Q4) Rabbit Monoclonal Antibody
产品货号：AMRe13946

产品概述（Summary）

产品名称（Production Name）	MLH1 (18Q4) Rabbit Monoclonal Antibody
描述（Description）	Recombinant rabbit monoclonal antibody
宿主（Host）	Rabbit
应用（Application）	WB,IHC,ICC/IF,FC,IP
种属反应性（Reactivity）	Human,Mouse,Rat

产品性能（Performance）

偶联物（Conjugation）	Unconjugated
修饰（Modification）	Unmodified
同种型（Isotype）	IgG
克隆（Clonality）	Monoclonal
形式（Form）	Liquid
存放说明（Storage）	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液（Buffer）	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% protective protein.
纯化方式（Purification）	Affinity purification

免疫原信息（Immunogen）

基因名（Gene Name）	MLH1
别名（Alternative Names）	DNA mismatch repair protein Mlh1; MutL protein homolog 1; COCA2;
基因 ID（Gene ID）	4292.0
蛋白 ID（SwissProt ID）	P40692.A synthetic peptide of human MLH1

产品应用（Application）

稀释比（Dilution Ratio）	WB 1:1000-1:2000,IHC 1:50-1:100,ICC/IF 1:20-1:50,FC 1:20-1:50,IP 1:20-1:50
蛋白分子量（Molecular Weight）	85kDa

研究背景（Background）

This gene was identified as a locus frequently mutated in hereditary nonpolyposis colon cancer (HNPCC). It is a human

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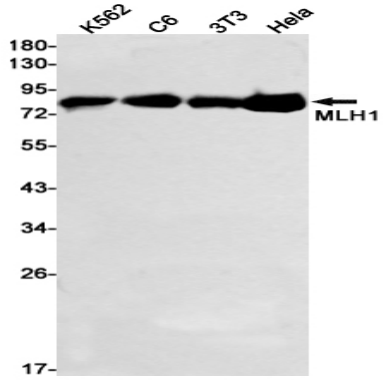
homolog of the E. coli DNA mismatch repair gene mutL, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC. Alternatively spliced transcript variants encoding different isoforms have been described, but their full-length natures have not been determined. 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.

研究领域（Research Area）

Epigenetics and Nuclear Signaling

图片（Image Data）



Western blot detection of MLH1 in K562,C6,3T3,Hela cell lysates using MLH1 antibody(1:1000 diluted).

注意事项（Note）

For research use only .