Data Sheet (Cat.No.TMAC-02607)

Anti-MLH1 Antibody (9P46)

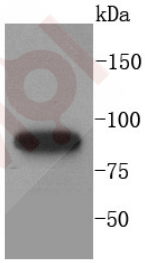
Product Details

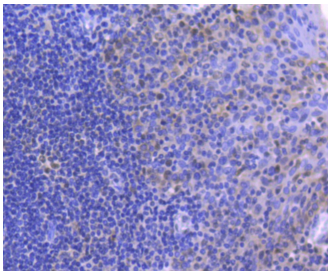
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 85 kDa.
Clone:	9P46
Purification:	ProA affinity purified

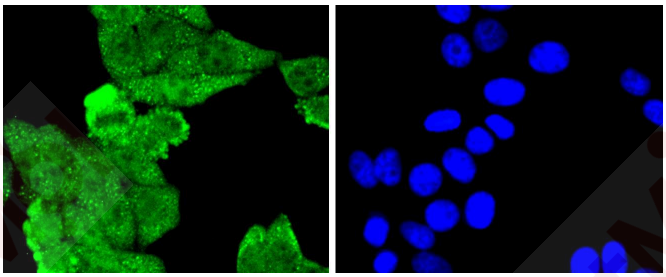
Applications

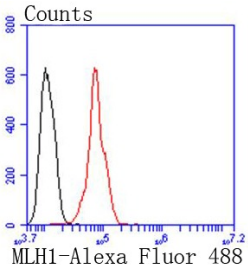
Verified Activity:

1. Western blot analysis of MLH1 on A431 cells lysates using anti-MLH1 antibody at 1/1,000 dilution.
2. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-MLH1 antibody. Counter stained with hematoxylin.
3. ICC staining MLH1 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. Flow cytometric analysis of Hela cells with MLH1 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.









Application: FCM,ICC/IF,IHC,IP,WB

Recommended: WB: 1:1000; IHC: 1:50-100; ICC/IF: 1:50-200; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: P40692

Synonyms: MutL homolog 1 (E. coli);COCA2;MLH 1;HNPCC;COCA 2;MutL protein homolog 1;MLH1; MGC5172;FCC2;HNPCC2;MutL homolog 1 colon cancer nonpolyposis type 2;FCC 2;MutL homolog 1;MutL, E. coli, homolog of, 1;hMLH 1;MLH1_HUMAN;hMLH1;DNA mismatch repair protein Mlh1;MutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli);HNPCC 2

Research Background

DNA-mismatch repair (MMR) is an essential process in maintaining genetic stability. 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 an integral part of the protein complex responsible for mismatch repair and is expressed in lymphocytes, heart, colon, breast, lung, spleen, testis, prostate, thyroid and gall bladder tissues, 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. In hereditary nonpolyposis colorectal cancer (HNPCC), an autosomal dominant inherited cancer syndrome that signifies a high risk of colorectal and various other types of cancer, the MLH1 gene exhibits a pathogenic mutation. Certain cancer cell lines, including leukemia CCRF-CEM, colon HCT 116 and KM12, and ovarian cancers SK-OV-3 and IGROV-1, show complete deficiency of MLH1, while MLH1 is expressed in 60% of melanomas, 70% of noninvasive squamous cell carcinomas and 30% of invasive squamous cell carcinomas.

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