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Product datasheet for TA307734

MLH1 Rabbit Monoclonal Antibody [Clone ID: EPR3893]

Product data:

Product Type:	Primary Antibodies
Clone Name:	EPR3893
Applications:	WB
Recommended Dilution:	WB: 1:1000 - 1:10000
Reactivity:	Mouse, Rat, Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide corresponding to residues in human MLH1 was used as an immunogen.
Formulation:	PBS 49%,Sodium azide 0.01%,Glycerol 50%,BSA 0.05%
Purification:	Tissue culture supernatant
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	85 kDa
Gene Name:	mutL homolog 1
Database Link:	NP_000240 Entrez Gene 17350 MouseEntrez Gene 81685 RatEntrez Gene 4292 Human P40692

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Background: MLH1 is a DNA mismatch repair protein that 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, and 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. It introduces single-strand breaks near the mismatch and thus generates new entry points for the exonuclease EXO1 to degrade the mismatch strand. MutL alpha (MLH1-PMS2) interacts physically with the clamp loader subunits of DNA polymerase III, suggesting that it may recruit DNA polymerase III to the site of the MMR. Defects in MLH1 are the cause of hereditary nonpolyposis colorectal cancer type 2 (HNPCC2). Most patients with HNPCC have mutations in either the MLH1 or MSH2 genes (1).

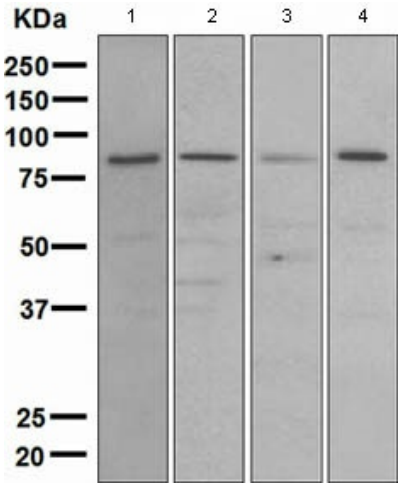
Synonyms: COCA2; FCC2; hMLH1; HNPCC; HNPCC2

Note: Is unsuitable for Flow Cyt,IHC-P or IP.

Protein Families: Druggable Genome

Protein Pathways: Colorectal cancer, Endometrial cancer, Mismatch repair, Pathways in cancer

Product images:



Western blot - MLH1 antibody [EPR3893]; All lanes : Anti-MLH1 antibody [EPR3893] at 1/1000 dilution.Lane 1 : 293T cell lysate.Lane 2 : Jurkat cell lysate.Lane 3 : K562 cell lysate.Lane 4 : SH-SY5Y cell lysate.Lysates/proteins at 10 ug per lane.Predicted band size : 85 kDa.