

MLH1 Conjugated Monoclonal Antibody

Catalog No: #C27214



Package Size: #C27214-AF350 100ul #C27214-AF405 100ul #C27214-AF488 100ul
 #C27214-AF555 100ul #C27214-AF594 100ul #C27214-AF647 100ul
 #C27214-AF680 100ul #C27214-AF750 100ul #C27214-Biotin 100ul

Orders: order@signalwayantibody.com
 Support: tech@signalwayantibody.com

Description

Product Name	MLH1 Conjugated Monoclonal Antibody
Host Species	Mouse
Clonality	Monoclonal
Specificity	This antibody detects endogenous levels of MLH1 and does not cross-react with related proteins.
Immunogen Description	Purified recombinant human MLH1 protein fragments expressed in E.coli.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	COCA 2; COCA2; DNA mismatch repair protein Mlh1; FCC 2; FCC2; hMLH 1; hMLH1; HNPCC 2; HNPCC; HNPCC2; MGC5172; MLH 1; MLH1; MLH1_HUMAN; MutL homolog 1 (E. coli); MutL homolog 1; MutL homolog 1 colon cancer nonpolyposis type 2;
Accession No.	Swiss-Prot#: P40692NCBI Gene ID:4292
Uniprot	P40692
GeneID	4292;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

Application Details

Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

Background

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. 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.

Note: This product is for in vitro research use only