

Recombinant Human MLH1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. MLH1-2320H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	MLH1 MS Standard C13 and N15-labeled recombinant protein (NP_000240) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	The protein encoded by this gene can heterodimerize with mismatch repair endonuclease PMS2 to form MutL alpha, part of the DNA mismatch repair system. When MutL alpha is bound by MutS beta and some accessory proteins, the PMS2 subunit of MutL alpha introduces a single-strand break near DNA mismatches, providing an entry point for exonuclease degradation. The encoded protein is also involved in DNA damage signaling and can heterodimerize with DNA mismatch repair protein MLH3 to form MutL gamma, which is involved in meiosis. This gene was identified as a locus frequently mutated in hereditary nonpolyposis colon cancer (HNPCC).
Molecular Mass	84.6 kDa
AA Sequence	MSFVAGVIRRLDET VVNRIAAGEVIQR PANAIKEMIENCLDAKSTSIQVIVKEGGLKLIQ IQDNGTGIRKEDLDIVCERFTTSK LQSFEDLASISTYGFRGEALASISHVAHVTTITKTA DGKCA YRASYS DGK LKAPPKPCAGNQG TQITVEDLFYNIATRRKALKNPSEEY GKIL E VVGRYSVHNAGISFSVKKQGETVADVRTL P NASTVDNIRSIFGNAVSRELIEIGCED

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

KTLAFKMNGYISNANYSVKKCIFLLFINHRLVESTSLRKAIETVYAAAYLPKNTHPFLYLS
 LEISPQNVVDVNVHPTKHEVHFLHEESILERVQQHIESKLLGNSSSRMFTQTLLPGLA
 GPSGEMVKSTTSLTSSSTSGSSDKVYAHQMVRTDSREQKLDAFLQPLSKPLSSQPQ
 AIVTEDKTDISSGRARQQDEEMLELPAPAEVAANKQSLEGDTTKGTSEMSEKRGPT
 SSNPRKRHRESDVEMVEDDSRKEMTAACP RRRIINLTSVLSLQEEINEQGHEVLR
 EMLHNHSFVGCVNPQWALAQHQTKLYLLNTTKLSEELFYQILIYDFANFGVLRRLSEP
 APLFDLAMLALDSPESGWTEEDGPKKEGLAEYIVEFLKKAEMLADYFSLEIDEEGNLI
 GLPLLIDNYVPPLEGLPIFILRLATEVNWDEEKECFESLSKECAMFYSIRKQYISEESTL
 SGQQSEVPGSIPNSWKWTVEHIVYKALRSHILPPKHFTEDGNILQLANLPDLYKVFER
 CTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name [MLH1 mutL homolog 1 \[Homo sapiens \(human\) \]](#)

Official Symbol [MLH1](#)

Synonyms MLH1; mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli); COCA2, mutL (E. coli) homolog 1 (colon cancer, nonpolyposis type 2); DNA mismatch repair protein Mlh1; FCC2; HNPCC; HNPCC2; COCA2; hMLH1; MGC5172;

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Gene ID 4292

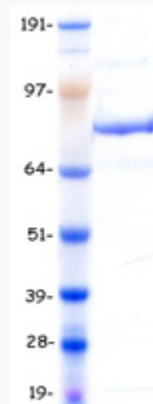
mRNA Refseq NM_000249

Protein Refseq NP_000240

MIM 120436

UniProt ID P40692

SDS-PAGE



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