

## Product datasheet for TP301607

### MLH1 (NM\_000249) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) (MLH1), 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC201607 protein sequence Red=Cloning site Green=Tags(s)

MSFVAGVIRRLDETUVNRIAAGEVIQRPANAIEKEMIENCLDAKSTSIQVIVKEGGLKLIQIQDNGTGIRK  
EDLDIVCERFTTSKLQSFEDLASISTYGFRGEALASISHVAHVTTITTKTADGKCAYRASYS DGKLKAPPK  
PCAGNQGTQITVEDLFYNIATRRLKALKNPSEYEGKILEVVGGRYSVHNAGISFSVKKQGETVADVRTLPA  
STVDNIRSFIGNAVSRELIEIGCEDKTLAFKMNGYISNANYSVKKCIFLLFINHRLVESTSLRKAIEVY  
AAYLPKNTHPFLYLSLEISPNVDVNVHPTKHEVHFLHEESILERVQQHIESKLLGSNSSRMYFTQTLPLP  
GLAGPSGEMVKSTTSLTSSSTSGSSDKVYAHQMVRTDSREQKLDAFLQPLSKPLSSQPQAIVTEDKTDIS  
SGRARQQDEEMLELPAPAEVAANKQSLEGGDTTKGTSEMSEKRGPTSSNPRKRHREDSVEMVEDDSRKEM  
TAACTPRRRIINLTSVLSLQEEINEQGHEVLREMLHNHSFVGCVNPQWALAQHQTKLYLLNNTTKLSEELF  
YQILYDFANFGVLRLEPAPLFDLAMLALDSPESGWTEEDGPKEGLAEYIVEFLKKAEMLADYFSLFI  
DEEGLNIGLPLLDNYVPPLEGLPIFILRLATEVNWDEEKECFESLSKECAMFYISIRKQYISEESTLSGQ  
QSEVPGSIPNSWKWTVEHIVYKALRSHILPPKHFTEDGNILQLANLPDLYKVFERC

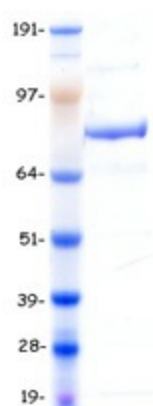
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	84.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.



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<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_000240</a>
<b>Locus ID:</b>	4292
<b>UniProt ID:</b>	<a href="#">P40692</a>
<b>RefSeq Size:</b>	2662
<b>Cytogenetics:</b>	3p22.2
<b>RefSeq ORF:</b>	2268
<b>Synonyms:</b>	COCA2; FCC2; hMLH1; HNPCC; HNPCC2; MMRCS1
<b>Summary:</b>	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). [provided by RefSeq, Aug 2017]
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Colorectal cancer, Endometrial cancer, Mismatch repair, Pathways in cancer

**Product images:**

Coomassie blue staining of purified MLH1 protein (Cat# TP301607). The protein was produced from HEK293T cells transfected with MLH1 cDNA clone (Cat# [RC201607]) using MegaTran 2.0 (Cat# [TT210002]).