

Product datasheet for TP510511

MLh1 (NM_026810) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse mutL homolog 1 (Mlh1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR210511 protein sequence Red =Cloning site Green =Tags(s) MAFVAGVIRRLDETVNRIAAGEVIQRPANAIKEMIENCLDAKSTNIQVVWKEGGLKLIQIQDNGTGIRK EDLDIVCERFTTSKLQTFEDLASISTYGFRGEALASISHVAHVTTTCTADGKCAYRASYS DGKLQAPPK PCAGNQGTLLITVEDLFYNIITRRKALKNPSEEYGKILEVVGRYSIHNSGISVKKQGETVSDVRTLPNA TTVDNIRSIFGNAVSRELIEVGCEDKTLAFKMNGYISNANYSVKKCIFLLFINHRLVESAA LRKAIETVY AAYLPKNTHPFLYLSLEIS PQNV DVNVHPTKHEVHFLHEESILQRVQQHIESKLLGSNSSRMYFTQTLLP GLAGPSGEAARPTTG VASSSTSGSGDKVYAYQMVRTDSRDQKLDAFLQPVSSLVPSQPQDPAPVRGARTE GSPERATREDEEMLALPAPAEAAA ESENLERESLMETS DTAQKAAPTSSPGSSRKRHREDS D VEMVENAS GKEMTAACYPRRRRIINLTSVLSLQEEISERCHETLREMLRNHSFVGC VNPQWALA QHQT KLYLLNTTKLS EELFYQILIYDFANFGVLR LSEPAPLFDLAMLALDSPESGWTEDDGPKEGLAEYIVEFLKKKA EMLADYF SVEIDEEGNLIGLPLLIDSYVPPLEGLPIFILRLATEVNWDEEKECFESLSKECAMFYSIRKQYILEEST LSGQQSDMPGSTSKPWKWTVEHIIYKAFRSHLLPPKHFTEDGNVLQLANLPDLYKVFERC TR TRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-MYC/DDK
Predicted MW:	84.7 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
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.


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Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_081086
Locus ID:	17350
UniProt ID:	Q9JK91
RefSeq Size:	2598
Cytogenetics:	9 60.92 cM
RefSeq ORF:	2280
Synonyms:	1110035C23Rik; AI317206; AI325952; AI561766
Summary:	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-MSH3) 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 (By similarity).[UniProtKB/Swiss-Prot Function]