

Product datasheet for PH301607

MLH1 (NM_000249) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	MLH1 MS Standard C13 and N15-labeled recombinant protein (NP_000240)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC201607
Predicted MW:	84.6 kDa
Protein Sequence:	>RC201607 protein sequence Red=Cloning site Green=Tags(s)

MSFVAGVIRRLDETVVNRIAAGEVIQRPANAIEKMIENCLDAKSTSIQVIVKEGGLKLIQIQDNGTGIRK
EDLDIVCERFTTSKLSQFEDLASISTYGFGEALASISHVAHVITTTKTADGKCAIRASYSYGKLGKAPPK
PCAGNQGTQITVEDLFYNIATRRLKALKNPSEYKILEVVGYSVHNAGISFSVKKQGETVADVRTLPA
STVDNIRSIIFGNAVSRELIEIGCEDKTLAFKMNGYISNANYSVKCKIFLLFINHRLVESTSLRKAJETVY
AAYLPKNTHPFLYL SLEISPQNVDVNVHPTKHEVHFLHEESILERVQQHIESKLLGNSSRMYFTQTLLP
GLAGPSGEMVKSTTSLTSSSTSGSSDKVYAHQMVRTDSREQKLD AFLQPLSKPLSSQPQAIVTEDKTDIS
SGRARQQDEEMLELPAPAEVAANKQSLEGDTTKGTSEMSEKRGPTSSNPRKRHRESDVEMVEDDSRKEM
TAACTPRRRIINLTSVLSLQEEINEQGHEVLRMLHNHSFVGCVPQWALAQHQTKLYLLNNTTKLSEELF
YQILLYDFANFGVLR LSEAPLFDLAMLALDSPESGWTEEDGPKEGLAEYIVEFLKKAEM LADYFSLEI
DEEENLIGLPLLDNYVPPLEGLPIFILRLATEVNWDEEKECFESLSKECAMFY SIRKQYISEESTLSGQ
QSEVPGSIPNSWKWTVEHIVYKALRSHILPPKHFTEDGNILQLANLPDLYKVFERC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_000240</u>



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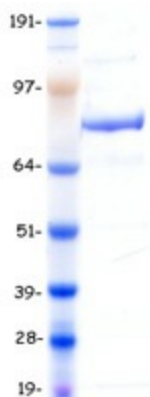
RefSeq Size:	2662
RefSeq ORF:	2268
Synonyms:	COCA2; FCC2; hMLH1; HNPCC; HNPCC2; MMRC51
Locus ID:	4292
UniProt ID:	P40692
Cytogenetics:	3p22.2

Summary: 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]

Protein Families: Druggable Genome

Protein Pathways: 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]).