

Recombinant Human PMS2 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. PMS2-1017H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PMS2 MS Standard C13 and N15-labeled recombinant protein (NP_000526) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	The protein encoded by this gene is a key component of the mismatch repair system that functions to correct DNA mismatches and small insertions and deletions that can occur during DNA replication and homologous recombination. This protein forms heterodimers with the gene product of the mutL homolog 1 (MLH1) gene to form the MutL-alpha heterodimer. The MutL-alpha heterodimer possesses an endonucleolytic activity that is activated following recognition of mismatches and insertion/deletion loops by the MutS-alpha and MutS-beta heterodimers, and is necessary for removal of the mismatched DNA. There is a DQHA(X)2E(X)4E motif found at the C-terminus of the protein encoded by this gene that forms part of the active site of the nuclease. Mutations in this gene have been associated with hereditary nonpolyposis colorectal cancer (HNPCC; also known as Lynch syndrome) and Turcot syndrome.
Molecular Mass	95.8 kDa
AA Sequence	MERAESSSTEPAKAIKPIDRKSVHQICSGQVVLSTAVKELVENS LDAGATNIDLKL KDYGVDLIEVSDNGCGVEEENFEGLTLKHHTSKIQEFADLTQVETFGFRGEALSSLC

 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

ALSDVTISTCHASAKVGTRLMFHDHNGKIIQKTPYPRPRGTTVSVQQLFSTLPVRHKEF
 QRNIKEYAKMVQVLHAYCIISAGIRVSCNQLGQGKRQPVVCTGGSPSIKENIGSVF
 GQKQLQSLIPFVQLPPSDSVCEEYGLSCSDALHNLFYISGFISQCTHGVGRSSTDQRQ
 FFFINRRPCDPAKVCRLVNEVYHMYNRHQYPFVVLNISVDSECVDINVTDPKRQILLQ
 EEKLLAVLKTSLIGMFDSVDNKLNVSSQQPLLDVEGNLIKMHAADEKPMVEKQDQS
 PSLRTGEEKKDVSIISRLREAFSLRHTTENKPHSPKTPEPRRSPLGQKRGMLSSSTS
 GAISDKGVLRPQKEAVSSSHGSPDPTDRAEVEKDSGHGSTSVDSSEGFSIPDTGSHC
 SSEYAASSPGDRGSQEHVDSQEKAPETDDSFSDVDCHSNQEDTGCKFRVLPQPTN
 LATPNTKRFKKEEILSSSDICQKLVTQDMSASQVDVAVKINKKVPLDFSISLAKRI
 KQLHHEAQQSEGEQNYRKFRACICPGENQA AEDELKEISKTMFAEMEIIIGQFNLGF
 IITKLNEDIFIVDQHATDEKYNFEMLQQHTVLQGQRLIAPQTLNLTAVNEAVLIENLEIF
 RKNGFDFVIDENAPVTERAKLISLPTSKNWTFGPQDVDELIFMLSDSPGVMCRPSRV
 KQMFASRACRKSVMIGTALNTSEMKKLITHMGEMDHPWNCPHGRPTMRHIANLGVI
 SQNTRTRPLEQKLISEEDLAANDILDYKDDDDKV

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 PMS2 PMS1 homolog 2, mismatch repair system component [Homo sapiens (human)]

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Official Symbol	PMS2
Synonyms	PMS2; PMS2 postmeiotic segregation increased 2 (S. cerevisiae); PMSL2, postmeiotic segregation increased (S. cerevisiae) 2; mismatch repair endonuclease PMS2; H_DJ0042M02.9; HNPCC4; PMS1 protein homolog 2; DNA mismatch repair protein PMS2; PMSL2; PMS2CL;
Gene ID	5395
mRNA Refseq	NM_000535
Protein Refseq	NP_000526
MIM	600259
UniProt ID	P54278
SDS-PAGE	