

# Recombinant Full Length Human PMS2 Protein, C-Flag-tagged

**Cat. No.** PMS2-1490HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human PMS2 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | <p>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.</p> |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Molecular Mass</b>   | 95.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>AA Sequence</b>      | MERAESSSTEPAKAIKPIDRKSVHQICSGQVVLSLSTAVKELVENS LDAGATNIDLKL<br>KDYGVDLIEVSD NGCGVEEENFEGLTLKHHTSKIQEFADLTQVETFGFRGEALSSLC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

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

ALSDVTISTCHASAKVGTRLMFHDHN GKIIQKTPYPRPRGTTVSVQQLFSTLPVRHKE  
 FQRNIKEYAKMVQVLHAYCIIISAGIRVSCTNQLGQGK RQPVVCTGGSPSIKENIGS  
 VFGQKQLQSLIPFVQLPPSDSVCEEYGLSCSDALHNLFYISGFISQCTHGV GRSSTD  
 RQFFFINRRPCDPAKVCRLVNEVYHMYNRHQYPFVVLNISVDSECVDINVTDPKRQI  
 LLQEEKL LLAVLKTSLIGMFDSVDNKLNVSQQLLDVEGNLIKMHAAADLEKPMVEKQ  
 DQSPSLRTGEEKKDVSISRL REAFSLRHTTENKPHSPKTPEPRRSPLGQKRGMMLSS  
 STSGAISDKGVLRPQKEAVSSSHGPSDPTDRAEV EKDSGHGSTSVDSSEGFSIPDTG  
 SHCSSEYAASSPGDRGSQEHVDSQEKAPETDDSFSDVDCHSNQEDTGC KFRVLP  
 QPTNLATPNTKRFKKEEILSSSDICQKLVNTQDMSASQVDVAVKINKKVPLDFSIS  
 LAKRIK QLHHEAQQSEGEQNYRKFRACICPGENQA AEDELKKEISKTMFAEMEIIIGQ  
 FNLGFIITKLNEDIFIVDQ HATDEKYNFEMLQQHTVLQGQRLIAPQTLNLTAVNEAVLI  
 ENLEIFRKNGFDFVIDENAPVTERAKLISL PTSKNWTFGPQDVDELIFMLSDSPGVM  
 CRPSRVKQMFASRACRKSVMIGTALNTSEMKKLITHMGEMDHP  
 WNCPHGRPTMRHIANLGVISQNTRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <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>Storage</b>          | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                             |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                              |
| <b>Protein Families</b> | Druggable Genome                                                                                                                              |
| <b>Protein Pathways</b> | Mismatch repair                                                                                                                               |

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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

**Full Length**
**Full L.**

## GENE INFORMATION

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

**Official Symbol** PMS2

**Synonyms** MLH4; PMS-2; PMSL2; HNPCC4; LYNCH4; MMRCS4; PMS2CL

**Gene ID** 5395

**mRNA Refseq** NM\_000535.7

**Protein Refseq** NP\_000526.2

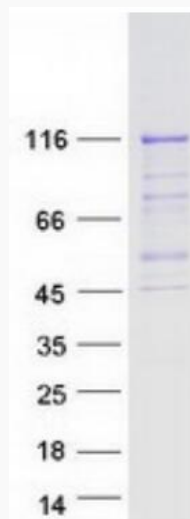
**MIM** 600259

**UniProt ID** P54278

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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



Coomassie blue staining of purified PMS2 protein.

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

Email: [info@creative-biomart.com](mailto:info@creative-biomart.com) Fax: 1-631-938-8127

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