

**AR50273PU-N****mutM (1-269, His-tag) - Purified**

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| <b>Alternate names:</b>  | Formamidopyrimidine-DNA glycosylase, fpg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Quantity:</b>         | 0.25 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Concentration:</b>    | 0.5 mg/ml (determined by Bradford assay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Background:</b>       | mutM, also known as formamidopyrimidine DNA glycosylase, is a base excision repair enzyme which recognizes and removes a wide range of oxidized purines from correspondingly damaged DNA. This protein is nonredundant and required to rapidly remove its substrate lesions on the chromosome. In addition, it also repaired a significant portion of the lesions recognized by Endo III, suggesting that it plays a prominent role in the global repair of both purine damage and pyrimidine damage in vivo.                                                                                    |
| <b>Uniprot ID:</b>       | <a href="#">P05523</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>NCBI:</b>             | <a href="#">NP_418092.1</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>GeneID:</b>           | <a href="#">946765</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source:</b>           | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Format:</b>           | <b>State:</b> Liquid purified protein<br><b>Purity:</b> >90% by SDS - PAGE<br><b>Buffer System:</b> 20 mM Tris-HCl buffer (pH8.0) containing 20% glycerol 0.1M NaCl, 1mM DTT                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description:</b>      | Recombinant E. coli mutM protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.<br><b>AA Sequence:</b><br>MGSSHHHHHHH SSGLVPRGSH MPPEPEVETS RRGIEPHLVG ATILHAVVRN GRLRWPVSEE<br>IYRLSDQPVL SVQRRAKYLL LELPEGWIII HLGMSGSLRI LPEELPPEKH DHVDLVMSNG<br>KVLRYTDP RR FGAWLWTKEL EGHNVLTHLG PEPLSDDFNG EYLHQKCAK KTAIKPWLM<br>NKLVVGVGNI YASESLFAAG IHPDRLASSL SLAECELLAR VIKAVLLRSI EQGGTTLKDF<br>LQSDGKPGYF AQELQVYGRK GEPCRVCGTP IVATKHAQRA TFYCRQCQK<br><b>Molecular weight:</b> 32.4 kDa (289aa), confirmed by MALDI-TOF |
| <b>Storage:</b>          | Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.<br>Avoid repeated freezing and thawing.<br>Shelf life: one year from despatch.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>General Readings:</b> | 1. Serre L, Pereira de Jésus K, Boiteux S, Zelwer C, Castaing B. Crystal structure of the Lactococcus lactis formamidopyrimidine-DNA glycosylase bound to an abasic site analogue-containing DNA. EMBO J. 2002 Jun 17;21(12):2854-65. PubMed PMID: 12065399.<br>2. Schalow BJ, Courcelle CT, Courcelle J. Escherichia coli Fpg glycosylase is nonredundant and required for the rapid global repair of oxidized purine and pyrimidine damage in vivo. J Mol Biol. 2011 Jul 8;410(2):183-93. doi: 10.1016/j.jmb.2011.05.004. Epub 2011 May 13. PubMed PMID: 21601577.                             |

Pictures:

