OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AR50273PU-S mutM (1-269, His-tag) - Purified

Alternate names: Formamidopyrimidine-DNA glycosylase, fpg

Quantity: 50 µg

Concentration: 0.5 mg/ml (determined by Bradford assay)

Background: 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.

Uniprot ID: P05523

NCBI: NP_418092.1

GeneID: 946765

Source: E. coli

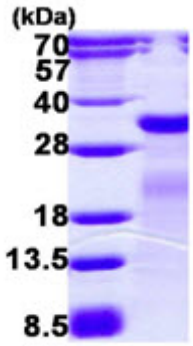
Format: **State:** Liquid purified protein
Purity: >90% by SDS - PAGE
Buffer System: 20 mM Tris-HCl buffer (pH8.0) containing 20% glycerol 0.1M NaCl,1mM DTT

Description: Recombinant E. coli mutM protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
AA Sequence:
MGSSHHHHHH SSGLVPRGSH MPELPEVETS RRGIEPHLVG ATILHAVVRN GRLRWPVSEE IYRLSDQPVL SVQRRAKYLL LELPEGWIII HLGMSGSLRI LPEELPPEKH DHVDLVMSNG KVLRYTDPRR FGAWLWTKEL EGHNVLTHLG PEPLSDDFNG EYLHQKCAKK KTAIKPWLMD NKLVVGVGNI YASESLFAAG IHPDRLASSL SLAECELLAR VIKAVLLRSI EQGGTTLKDF LQSDGKPGYF AQELQVYGRK GEPCRVCGTP IVATKHAQRA TFYCRQCQK
Molecular weight: 32.4 kDa (289aa), confirmed by MALDI-TOF

Storage: Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:
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.
2. Schalow BJ, Courcelle CT, Courcelle J. Escherichia coli Fpg glycosylase is nonrendundant 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:



15% SDS-PAGE (3ug)