

**AR50881PU-S****mug (1-168, His-tag) - Purified****Alternate names:**

ECK3058, G/U mismatch-specific DNA glycosylase, JW3040, dug, xanthine DNA glycosylase, ygiF

**Quantity:**

50 µg

**Concentration:**

0.5 mg/ml (determined by Bradford assay)

**Background:**

G/U mismatch-specific DNA glycosylase, xanthine DNA glycosylase, also known as mug, belongs to the TDG/mug DNA glycosylase family. It has been proposed that the Mug protein excises 3, N4-ethenocytosine and removes the uracil base from mismatches in the order of U:G>U:A, although the biological role remains unclear. The enzyme Uracil-N-Glycosylase removes uracil from the DNA leaving an AP site. It is capable of hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of the DNA and the mispaired base. The complementary strand guanine functions in substrate recognition.

**Uniprot ID:**[POA9H1](#)**NCBI:**[NP\\_417540](#)**GeneID:**[947560](#)**Source:**

E. coli

**Format:****State:** Liquid purified protein**Purity:** >90% by SDS - PAGE**Buffer System:** 20 mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol**Description:**

Recombinant E.coli mug protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

**AA Sequence:**

MGSSHHHHHHH SSGLVPRGSH MGSVEDILA PGLRVVFCGI NPGLSSAGTG FPFAPANRF  
WKVIYQAGFT DRQLKPQEAQ HLLDYRCGVT KLVDRPTVQA NEVSKQELHA GGRKLIKIE  
DYQPQALAIL GKQAYEQGFS QRGAQWGKQT LTIGSTQIYW LPNPSGLSRV SLEKLVEAYR  
ELDQALVVRG R

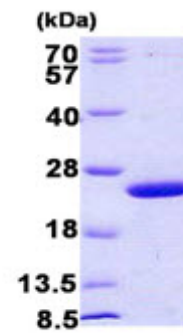
**Molecular weight:** 21.1 kDa (191aa) confirmed by MALDI-TOF**Storage:**

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:**

Lee HW., et al. (2010) J Biol Chem. 285(53):41483-90 Gallinari P., et al. (1996) Nature. 383(6602):735-8.

Pictures:



15% SDS-PAGE (3ug)