

**mug, 1-168aa, E.coli, His tag, E.coli**

**Cat.NO.: TP03047**

3th Edition

**Synonyms:**G/U mismatch-specific DNA glycosylase, xanthine DNA glycosylase, dug, ECK3058, JW3040, ygjF

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

**Form:**Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol

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

**Sequences:**

MGSSHHHHHSSGLVPRGSHMGSMVEDILAPGLRVVFCGINPGLSSAGTGFPFAHPANRFWKVIYQAGFTDRQLK  
PQEAQHLLDYRCGVTKLVDRPTVQANEVSKQELHAGGRKLIEKIEDYQPQALAILGKQAYEQGFSQRGAQWGKQT  
LTIGSTQIWVLPNPSGLSRVSLEKLVEAYRELDQALVVRGR

**Purity:**> 95% by HPLC

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

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.