

Recombinant e.coli mug protein

Catalog Number: ATGP2057

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-168aa

UniProt No.

P0A9H1

NCBI Accession No.

NP_417540

Alternative Names

G/u mismatch-specific DNA glycosylase, xanthine DNA glycosylase, dug, ECK3058, JW3040, ygjF

PRODUCT SPECIFICATION

Molecular Weight

21.1 kDa (191aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol

Purity

> 90% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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-

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tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

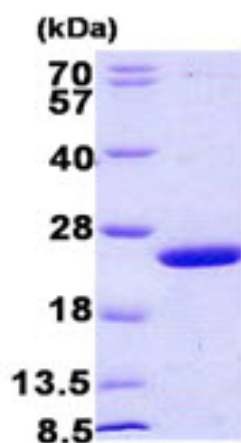
MGSSHHHHHH SGLVPRGSH MGSMVEDILA PGLRVVFCGI NPGLSSAGTG PFAHPANRF WKVIYQAGFT DRQLKPQEAQ
HLLDYRCGVT KLVDRPTVQA NEVSKQELHA GGRKLIKIE DYQPQALAIL GKQAYEQGFS QRG AQW GKQT LTIGSTQI WV
LPNPSGLSRV SLEKLVEAYR ELDQALVVRG R

General References

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

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)