

Recombinant E.coli, adenine DNA glycosylase, His-tagged

Cat. No. mutY-541E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	mutY, 1-350aa, E.coli, His tag, E.coli
Species	E.coli
Source	E.coli
ProteinLength	1-350 a.a.
Description	Adenine DNA glycosylase, also known as mutY, is an adenine DNA glycosylase active on DNA substrates containing A/G, A/8-oxoG, or A/C mismatches and also has a weak guanine glycosylase activity on G/8-oxoG-containing DNA. mutY is crucial for the avoidance of mutations resulting from oxidative DNA damage. Increasing levels of mutY in A549 cells exposed to oxygen and infrared radiation leads to improvements in cell survival. It is abundant in neurons where mitochondrial genomes exposed to reactive oxygen species (ROS) that damage DNA must maintain integrity over the entire mammalian life span. Recombinant E.coil mutY 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 Mass	41.5 kDa (373aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMQASQFS AQVLDWYDKY GRKTLPWQID KTPYKVLWSE VMLQQTQVAT VIPYFERFMA RFPTVTDLAN APLDEVLHLW

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TGLGYYARAR NLHKAAQQVA TLHGGKFPET FEEVAALPGV GRSTAGAILS
 LSLGKHPIL DGNVKRVLAR CYAVSGWPGK KEVENKLWSL SEQVTPAVGV
 ERFNQAMMDL GAMICTRSKP KCSLCPLQNG CIAAANNSWA LYPGKKPKQT
 LPERTGYFLL LQHEDEVLLA QRPPSGLWGG LYCFPQFADE ESLRQWLAQR
 QIAADNLTQL TAFRHTFSHF HLDIVPMWLP VSSFTGCMDE GNALWYNLAQ
 PPSVGLAAPV ERLQLQLRTG APV

Purity >90% by SDS - PAGE

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

Concentration 0.25 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [mutY?adenine DNA glycosylase \[?Escherichia coli str. K-12 substr. MG1655?\]](#)

Official Symbol [mutY](#)

Synonyms [mutY](#); [ECK2956](#); [JW2928](#); [micA](#); [mutB](#); [adenine DNA glycosylase](#); [adenine DNA glycosylase](#); [NP_417436.1](#); [EC 3.2.2.-](#); [adenine glycosylase](#); [G.C -->T.A transversions](#)

Gene ID [947447](#)

Protein Refseq [NP_417436](#)

Pathway [Base Excision Repair](#); [Base-Excision Repair](#), [AP Site Formation](#); [Depurination](#)

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