

mutY, 1-350aa, E.coli, His tag, E.coli

Cat.NO.: TP03052

3th Edition

Synonyms: Adenine DNA glycosylase, ECK2956, JW2928, mica, mutB

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.coli 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 Weight: 41.5 kDa (373aa) confirmed by MALDI-TOF

Sequences:

MGSSHHHHHSSGLVPRGSHMGSMQASQFSAQVLDWYDKYGRKTLPWQIDKTPYKVVWLSEVMLQQTQVATVIP
YFERFMARFPTVTDLANAPLDEVLHLWTGLGYARARNLHKAQQVATLHGGKFPETFEEVAALPGVGRSTAGAIL
SLSLGKHFPILDGNVLRVLCYAVSGWPGKKEVENKLWLSLSEQVTPAVGVERFNQAMMDLGAMICTRSKPKCSL
CPLQNGCIAAANNSWALYPGKPKQTLPERTGYFLLLQHEDEVLLAQRPPSGLWGGLYCFPQFADEESLRQWLAQ
RQIAADNLTQLTAFRHTFSHFHLDIVPMWLPVSSFTGCMDEGNALWYNLAQPPSVGLAAPVERLLQQLRTGAPV

Purity: > 95% by HPLC

Concentration: 0.25 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.