Product Data Sheet

Product Name:	MUG E.Coli
Cat. No.:	GP21962
Batch No.:	1

Product Data

Purity	>98%	Source	E.coli.
Phycical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	xanthine DNA glycosylase; dug; ECK3058; JW3040; ygjF; G/U mismatch-specific DNA glycosylase; Double-strand-specific uracil glycosylase; Mismatch-specific uracil DNA-glycosylase; mug.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSMVEDILA PGLRVVFCGI NPGLSSAGTG FPFAHPANRF WKVIYQAGFT DRQLKPQEAQ HLLDYRCGVT KLVDRPTVQA NEVSKQELHA GGRKLIEKIE DYQPQALAIL GKQAYEQGFS QRGAQWGKQT LTIGSTQIWV LPNPSGLSRV SLEKLVEAYR ELDQALVVRG R.		
Formulation	The MUG solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.1M NaCl and 20% glycerol.		

Introduction

G/U mismatch-specific DNA glycosylase (mug) is a part of the TDG/mug DNA glycosylase family. Mug is necessary for DNA damage lesion repair in stationary-phase cells. Mug protein removes three N4-ethenocytosine and takes away s the uracil base from mismatches in the order of U:G>U:A. The enzyme Uracil-N-Glycosylase removes uracil from the DNA leaving an AP position. Mug is also able to hydrolyzing the carbon-nitrogen bond among the sugar-phosphate backbone of the DNA and the mispaired base. The complementary strand guanine plays a role in substrate recognition.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.

Background

MUG Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain

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containing 191 amino acids (1-168) and having a molecular mass of 21.1kDa. MUG is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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