Uracil-DNA Glycosylase

Please read the manual carefully before use.

Cat. No. LU101

Storage: at -20°C for two years

Concentration: 5,000 units/ml

Description

This product is a 26.5 kDa purified recombinant protein inducibly expressed in *E. coli* carrying the Uracil-DNA Glycosylase gene. UDG enzyme catalyzes the release of uracil in single-stranded or double-stranded DNA but is not effective for oligomeric DNA (n≤6 bases).

Highlights

- Remove uracil from DNA.

Application

Prevent residual DNA contamination and improve the specificity of PCR products.

Kit Contents

Component	LU101-01	LU101-02
UDG Enzyme	1000 units	5×1000 units
10×UDG Reaction Buffer	1 ml	5×1 ml
10×DNA Loading Buffer	1 ml	5 ml

Unit Definition

One unit is defined as the amount of enzyme required to release 60 pM uracil from uracil-containing double-stranded DNA per minute at 37°C in a 50 µl reaction system.

Quality Control Assays

Non-specific nuclease activity (16-hours incubation): In a 50 µl reaction system, 125 units of enzyme are incubated with 1 µg DNA for 16 hours. The result is comparable with that of 1-hour incubation with 5 units of enzyme.

Endonuclease activity: In a 50 µl reaction system, incubation of 25 units of enzyme with 1 µg of pBR322 DNA at 37°C for 4 hours results in no more than 5% from RFI to RFII.

Storage Buffer

50 mM Tris-HCl pH 7.4, 50 mM KCl, 0.1 mM EDTA, 1.5 mM DTT, 200 µg/ml BSA, 50% Glycerol

10×UDG Reaction Buffer

200mM Tris-HCl pH7.9, 15 mM DTT, 10 mM EDTA

Reaction component (50 µl Reaction System)

Component	Volume
DNA	≤100 ng
10×UDG Reaction Buffer	5 µl
UDG Enzyme	1 µl
Nuclease-free Water	Variable
Total Volume	50 µl

Reaction condition

- Incubate for 10 minutes at 37°C. To terminate the reaction, add 10×DNA Loading Buffer to reach a final concentration of 1×.

Notes

- Please mix the buffer thoroughly prior to use.

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