DTI Uracil DNA Glycosylase (UNG), Heat-labile, (Glycerol Free) (25 U/µl)

Instruction Manual for use

User Manual for DTI Uracil DNA Glycosylase(UNG), Heat-labile, (Glycerol Free) (25U/ µl)

Catalogue number: DT0106.250

1) Product Description:

DTI Uracil DNA Glycosylase(UNG), Heat-labile, (Glycerol Free) (25 U/ µl) hydrolyzes N-glycosylic bonds between the deoxyribose sugars and the uracil bases in uracil-containing DNA leaving apyrimidinic sites in the DNA. UNG excises uracil from both single- and double-stranded dU-containing DNA but not from RNA. The high concentration glycerol free version makes the product suitable for lyophilisation.

2) Kit Contents:

Component	Qty
DTI Uracil DNA Glycosylase (UNG), Heat-labile, (Glycerol Free) (25 U/ µl)	10 µl

* Customized pack size available

3) Storage and shipment conditions: -80°C

4) Storage Buffer:

20 mM	Tris-HCl, pH 8.0 (at 4℃)
100 mM	KCl
1 mM	DTT
0.1 mM	EDTA
0.5% (v/v)	NP-40
0.5% (v/v)	Tween 20

5) Source:

Produced in E. coli strain expressing a recombinant Xiphophorus maculatus UNG mutant.

6) Unit definition:

One unit of UNG is defined as the amount of enzyme required to digest 1 µg of uracil-containing dsDNA at 25℃ in 30 min.

7) Inactivation by heat:

The enzyme is completely and irreversibly inactivated by heat incubating at 50℃ for 10 min.

8) Application :

- Further manufacturing and lyophilization processes for PCR, RT-PCR and LAMP assays

9) Usage protocol

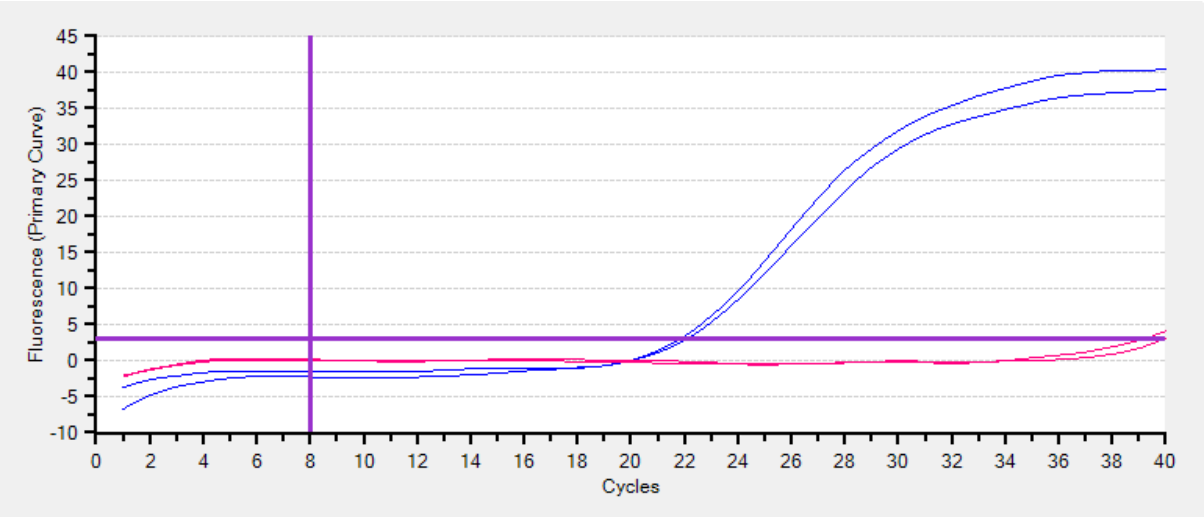
As per the requirement, use the Uracil DNA Glycosylase (UNG), Heat-labile, (Glycerol Free) (25U/ µl) as is. If needed, the enzyme could be diluted and used further.

- Add suitable amount of enzyme based on the application. Generally, a range of 0.1 - 1 U/50µl of reaction volume is used
- UNG activation: Incubate for 10 min at 25℃
- UNG inactivation: Incubate for 2 min at 95℃
- Follow with the protocol of application

15) Quality control data: Please see the certificate of analysis for each lot

16) Experimental sample:

Performance data: qPCR reactions was performed with two qPCR reaction mix: One with UNG at a concentration of 2 U/ µl and other without UNG. Both these mixes were spiked with dU-containing amplicons, mimicking carryover contamination. The reaction mix without UNG generated a regular amplification curve, while the reaction mix containing UNG degraded the dU-containing amplicons resulting in significant reduction in amplification from the mimicking carryover contamination.



Reaction mix without UNG, Reaction mix with UNG

Visit https://dsstakarabio.com/pages/dti-ung-25-u-l-glycerol-free for more detailed product information

For more information contact directly below;
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Toll-Free number 1800-212-4922

Description of Symbol Used:

REF Catalogue number

LOT Batch Code

Date of Manufacturing

Use-by-date

Contains sufficient for <n> tests