Thermolabile UDG

Cat. No. E095

Store at -20°C.

Product Description

Thermolabile UDG is a **uracil-DNA glycosylase which catalyzes the release of uracil from uracil-containing single-stranded or double-stranded DNA**. The release of uracil results in high susceptibility to hydrolytic cleavage at elevated temperatures or high pH. This function allows for many applications such as the prevention of carryover contamination during PCR or qPCR. By incorporating uracil in the reactions, the degradation of previous reaction products can be ensured and any contamination can be prevented. Furthermore, this enzyme is sensitive to heat and can be rapidly and completely inactivated at temperatures above 50°C which also prevents any downstream interference.

Product Component	Quantity	Part No.
Thermolabile UDG	200 rxn (100µl)	E095-1
10X UDG Reaction Buffer	500µl	E095-2

Protocol

Two protocols available to use the Thermolabile UDG.

Option 1. Using 10X UDG Reaction Buffer

1. Mix individual components before use and set up per PCR/qPCR reaction tube.

Component	Volume
10X UDG Reaction Buffer	5µl
Thermolabile UDG	1µl
Uracil incorporated DNA	0.2µg
Total	50µl

2. Run at 25°C for 30 seconds.
3. Heat inactivate at 50°C for 5 minutes.

Option 2. Direct Application to Subsequent PCR/qPCR Reaction

1. Mix individual components before use and set up per PCR/qPCR reaction tube.

Component	Volume
PCR or qPCR Reaction Mix	49µl
Thermolabile UDG	1µl
Total	50µl

2. Add initial UDG activation step (25°C for 30 seconds) to the existing PCR/qPCR protocol.

Note: UDG Reaction Buffer is not needed in this protocol.

General Notes

- To prevent carryover contaminations, it is recommended to use the direct application protocol.
- For any other applications, use the reaction buffer protocol.