

## Uracil-N-Glycosylase (UNG)

RT-0610-03<sup>[300 U]</sup> • RT-0610-15<sup>[1500 U]</sup>

### Description

*E. coli* uracil-DNA glycosylase (UDG or UNG) hydrolyses and releases free uracil from uracil-containing DNA. UDG efficiently hydrolyses single or double-stranded DNA, but not from oligomers (6 or less bases).

Consequently, if all PCR amplifications are performed in the presence of a dNTPs/dUTP blend, by carrying a UNG step before every run it is possible to get rid of any previous and undesired PCR products containing dUTP.

### Source

Purified from *E. coli* expressing the *ung* gene of *E. coli* on a plasmid.

TABLE 1

Reagent (Catalogue #)	Description
UNG (RT-0610-03)	– 1 tube of 300 µL UNG (1 u/µL) – 1 tube of reaction buffer 10x (200 mM Tris-HCl pH8.0, 10 mM EDTA, 10 mM DTT)
UNG (RT-0610-15)	– 1 tube of 1.5 mL UNG (1 u/µL) – 5 tubes of reaction buffer 10x (200 mM Tris-HCl pH8.0, 10 mM EDTA, 10 mM DTT)

### Storage conditions

For long term storage the UNG should be stored at -15 °C to -25 °C in a constant temperature freezer.

When stored under these conditions the reagents are stable for 2 years.

Avoid repetitive freeze-thaw cycles.

### Protocol

If UNG is required, please add an initial step before the usual cycling protocol: 2 min at 50 °C. It is essential to avoid using UNG in PCR cycles where the annealing/extension temperatures are below 55°C to ensure optimal and consistent results. Temperatures of at least 55°C should be used throughout the cycling protocol to avoid degrading the PCR products.

### Procedure when using any PCR or qPCR kits containing dUTP

Uracil-N-Glycosylase can be added to a final concentration of 0.01 u/µL: 0.5 µl of 1 u/µL UNG per 50 µL reaction.

### Unit Definition

One unit is defined as the amount of enzyme that catalyzes the release of 60 pmol of uracil per minute from double stranded, uracil containing DNA.

Further information available through Eurogentec website: [www.eurogentec.com](http://www.eurogentec.com).

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