

Uracil N-Glycosylase (UNG, UDG)

Prevention of carry-over contaminations

Real-Time PCR

| Cat.-No. | Amount | Conc. |
|----------|-----------|-----------------|
| PCR-353 | 200 units | 1 unit/ μ l |

For *in vitro* use only

Quality guaranteed for 12 months

Store at -20°C, avoid frequent thawing and freezing

Description

Thermolabile UNG is used in real-time PCR to prevent carry-over contaminations of dU-containing DNA from previous reactions. Uracyl N-Glycosylase (UNG, UDG) catalyses the release of uracil from single and double stranded uracyl-containing DNA. The resulting abasic sites are susceptible to hydrolytic cleavage at elevated temperatures.

An amount of 0.1 units UNG can completely destroy up to 200 ng dU-containing DNA in 2 min at 50°C.

Recommended assay

Add 0.2 μ l (0.2 units) UNG for each 50 μ l of master mix and vortex thoroughly. The preparation of a master mix is crucial in quantitative PCR reactions to reduce pipetting errors.

An UNG treatment of 2 min at 50°C at the onset of thermal cycling removes uracil residues from dU-containing DNA and prevents it from serving as template. UNG is easily heat-inactivated at temperatures above 65°C in the following initial denaturation step of the PCR.

Unit definition

One unit of enzyme catalyzes the degradation of 1 μ g single-stranded uracil-containing DNA at 37°C in 60 min.

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www.jenabioscience.com/pcr

Uracil N-Glycosylase, 200 μ l

1 units/ μ l in 20 mM Tris-HCl (pH 8.0), 50 mM NaCl,
1 mM EDTA, 1 mM DTT, 50 μ g/ml BSA, 50% Glycerol