



Thermolabile Uracil-N-glycosylase (UNG)

Cat. No.	size
E1251-01	500 u

Unit Definition:

One unit of the enzyme catalyzes the release 1 nanomole of uracil from uracil-containing DNA template in 60 min at 37°C.

Concentration:

1 U/μl

Storage Conditions:

Store at -20°C.

Inactivation Temperature:

5 min at 50°C.

Description:

- Uracil-N-glycosylase is a pure recombinant 26 kDa enzyme expressed in *E. coli*.
- UNG is used in PCR and real-time PCR to prevent carryover contamination between reactions.
- The enzyme removes uracil from any dU-containing contaminating amplicons, leaving abasic sites and making DNA molecules susceptible to hydrolysis during the initial denaturation step.
- To enable PCR amplicons to be degraded, dTTP must be partially or completely substituted by dUTP.
- Uracil-N-glycosylase is inactivated by incubation at 50°C for 5 min.

Storage Buffer:

20 mM Tris-HCl (pH 8.0 at 20°C), 50 mM NaCl, 1 mM EDTA, 1 mM dithiothreitol, 50% glycerol.

Procedure:

1. Add 0.25 units UNG for each 25 μl of the PCR reaction mix.
25 μl reaction requires 0.25 units UNG, 50 μl reaction requires 0.5 units UNG.
2. During the initial denaturation step UNG is inactivated.
3. Follow the cycling program.

Quality Control:

All preparations are assayed for contaminating endonuclease, 3'-exonuclease, and non-specific single- and double-stranded DNase activities. Typical preparations are greater than 98% pure, as judged by SDS polyacrylamide gel electrophoresis.