

Heat Labile Uracil-DNA Glycosylase, 1U/μl

LOT: See product label

EXPIRY DATE: See product label

ORDERING INFORMATION

CAT. NO.	SIZE	PACKAGE CONTENT
BR1100701	100 U (400 rxn)	100 μl Heat Labile Uracil-DNA Glycosylase
BR1100702	500 U (2000 rxn)	5 × 100 μl Heat Labile Uracil-DNA Glycosylase

COMPONENT

Heat Labile Uracil-DNA
Glycosylase

COMPOSITION

Heat Labile Uracil-DNA Glycosylase, 1U/μl, in storage buffer containing 50% (v/v) glycerol.

STORAGE

-20°C (until expiry date – see product label)

FEATURES

- The only Uracil–DNA glycosylase that is completely and irreversibly heat inactivated
- Heat-labile without any addition of agents or inhibitors
- Active in common PCR and RT-PCR buffers

APPLICATIONS

- Eliminates carry-over contamination in PCR, RT-PCR, qPCR and RT-qPCR
- Enables downstream post-PCR analysis such as cloning and sequencing
- Analysis of ancient DNA

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DESCRIPTION

biotechrabbit™ Heat Labile Uracil–DNA Glycosylase selectively degrades uracil-containing PCR products. After performing PCR or RT-PCR using dUTP instead of dTTP, PCR products remain intact after treatment with Heat Labile Uracil–DNA Glycosylase, whereas contaminating DNA (i.e., not amplified) is degraded. Heat Labile Uracil–DNA Glycosylase is completely and irreversibly inactivated by moderate heat treatment at 50°C, allowing contamination control in RT-qPCR. The enzyme hydrolyses the N-glycosylic bond between the deoxyribose sugar and the base in uracil-containing DNA leaving an abasic (apyrimidinic) site in DNA but does not modify uracils in RNA.

Heat Labile Uracil–DNA Glycosylase is highly active at 20–40°C. No cofactors or divalent cations are required for activity, and the enzyme is active in most PCR and RT-PCR buffers. Although the enzyme is active a pH 6.5–9.0, the optimal pH 7.5 is in 50 mM NaCl.

BASIC PROTOCOLS

Heat Labile Uracil–DNA Glycosylase is active in all commercially available PCR master mixes. Previous PCR/RT-PCR reactions must have used dUTP containing dNTP mixes.

PCR/QPCR

- Add 0.25 μ l (0.25 U) Heat Labile Uracil–DNA Glycosylase to a 25 μ l PCR reaction
- Incubate for 5 min at room temperature
- Start the PCR run

One-step RT-PCR

- Add 0.2 μ l (0.2 U) Heat Labile Uracil–DNA Glycosylase to a 20 μ l RT-PCR reaction
- Incubate for 5 min at room temperature
- Run the reverse transcription at 50- 55°C
- Start the PCR run

Store final PCR/RT-PCR products at -20°C or 4°C degrees.

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CERTIFICATE OF ANALYSIS

Unit Definition

One Unit will liberate 1 nmol Uracil from Uracil-containing DNA per hour at 37°C.

Quality Control

Protein Purity

Purified to apparent homogeneity by SDS-PAGE. No nuclease activity is detected.

Quality confirmed by: Head of Quality Control

SAFETY INSTRUCTIONS

For safety instructions please see Safety Data Sheets (SDS)/Sicherheitshinweise finden Sie in den SDS unter: <http://www.biotechrabbit.com/support/documentation.html>.

USEFUL HINTS

- Visit Applications at www.biotechrabbit.com for more products and product selection guides.
- Most biotechrabbit products are available in custom formulations and bulk amounts.

CONTACT BIOTECHRABBIT

biotechrabbit GmbH
Volmerstr. 9a
12489 Berlin, Germany

info@biotechrabbit.com
support@biotechrabbit.com
www.biotechrabbit.com

Phone: +49 30 555 7821-10
Fax: +49 30 555 7821-99



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