Temperature Sensitive UNG

Cat.No.: HYA314

Product Description

Temperature Sensitive UNG is a temperature-sensitive UNG enzyme obtained by recombinant expression in E. coli. The enzyme can catalyze the release of free uracil from single-stranded and double-stranded DNA containing uracil, and has no activity against RNA. Compared with conventional UNG enzymes derived from E. coli genes, Temperature Sensitive UNG has higher activity at low temperatures (20℃~37℃), is sensitive to temperature, and is easy to inactivate (50℃), avoiding the degradation of dUTP-containing amplification products at room temperature by the residual activity that may still exist after the conventional UNG enzyme is inactivated. Therefore, Temperature Sensitive UNG can not only be better applied to PCR anti-contamination reactions, but also can be well matched to RT-PCR amplification procedures and applied to RT-PCR anti-contamination reactions.

Components

Component	100 U	1000 U	5000 U
1 U/uL Temperature Sensitive UNG	100 uL	1 mL	5 mL

Storage

Store at -25°C~ -15°C.

Unit Definition

1 unit is defined as the amount of enzyme that degrades 1 μg of single-stranded DNA containing dU in 1 hour at 37°C.

Quality Control

1. SDS-PAGE electrophoresis purity greater than 98%.
2. Degradation activity, batch-to-batch variation, and stability.
3. No exogenous nuclease activity.

Notes

1. The optimal reaction temperature of Temperature Sensitive UNG is relatively low. The dosage of enzyme and reaction time can be optimized in the range of 20℃~37℃, 0.1~0.5 U, 5~10 min; and the enzyme can be inactivated during the reverse transcription process.
2. Suitable for PCR and RT-PCR anti-contamination use.
3. Avoid repeated freezing and thawing, and do not expose to an environment with large temperature fluctuations.
4. Different genes to be amplified have different utilization efficiency of dUTP and sensitivity to UNG enzyme. Therefore, if the use of UNG system leads to a decrease in detection sensitivity, the reaction system should be adjusted and optimized. If you need technical support, please contact our company.