

UCF.ME™ Uracil DNA Glycosylase (UDG/UNG), 1 U/μL

Product description

UCF.ME™ Uracil DNA Glycosylase (UDG/UNG) is expressed and purified from recombinant E.coli strains carrying the UDG gene from a psychrophilic marine bacterium through multiple steps of purification. This product catalyzes the release of free uracil from uracil-containing ssDNA or dsDNA by hydrolyzing the N-glycoside bond between uracil bases and sugar phosphate skeletons, producing AP sites that are easily broken by hydrolysis. It can be widely used in common molecular biological systems such as PCR, qPCR, RT-qPCR and RT-LAMP.

It is anti-pollution UDG enzyme with ultra low background bacteria residue. Compared with Uracil DNA Glycosylase (UDG/UNG), this product has lower host nucleic acid residue, which is suitable for application with more stringent requirements on background bacteria, such as pathogen microorganism detection.

Specifications

Source	Recombinant E. coli with UDG gene from psychrophilic marine bacteria
Storage Buffer	20 mM Tris-HCl, 100 mM KCl, 0.1mM EDTA, 1mM DTT, 0.5% Tween-20, 0.5% NP-40, 50% Glycerol, pH8.0 ± 0.2 @ 25°C
Unit Definition	One unit (U) is defined as the amount of enzyme that required to catalyze the hydrolysis of 1 μg dU-containing dsDNA in 30 minutes at 25°C
Heat Inactivation	95°C, 5~10 min

Components

Name	14454ES60	14454ES76	14454ES96
	100 U	500 U	10,000 U
UCF.ME™ Uracil DNA Glycosylase (UDG/UNG), 1 U/μL	100 μL	500 μL	10 mL

Storage

The product should be stored at -25~-15°C for 2 years.

Instructions

1. The recommended amount to add in a 20 μL system is 0.1-1 units (U), and the input quantity can be adjusted based on the actual results.
2. According to the demands of the experiment, the final concentration of dUTP can be adjusted between 0.2~0.6 mM, and 0.2 mM dTTP can be added selectively.
3. The reaction time at 25~37°C can be adjusted within 5~10 min according to the experimental require.

Notes

1. UDG enzyme is active in most PCR or RT-PCR reaction buffers, but it is recommended to test compatibility with the system used for the first time for self-used PCR or RT-PCR systems.
2. The enzyme should be stored in the ice box or ice bath when used, and should be stored at -25~-15°C immediately after use.
3. For your safety and health, please wear lab coats and disposable gloves for operation.
4. This product is for scientific research purposes only.