Uracil-DNA Glycosylase

i. Product Description

The principle of action of UDG enzyme is to selectively hydrolyze and break the uridine glycosidic bond of double-stranded or single-stranded DNA containing dU. Replace dTTP with dUTP, so that all PCR products contain dU DNA strands. Adding an incubation step before the start of PCR, the UDG enzyme can degrade the uracil bases in the existing U-DNA pollutants in the reaction system, and break the DNA strands under subsequent denaturing conditions, eliminating the pollution caused by aerosols Amplification, so as to ensure the specificity and accuracy of the amplification results. The UDG enzyme was inactivated at the high temperature of 95°C at the beginning of PCR, and it would no longer degrade the newly amplified product U-DNA.

ii. Advantages

Stability: High standard production process to achieve high product stability.
Fast: Contaminants can be degraded during the room temperature reaction system.
Compatibility: excellent compatibility with various PCR and qPCR systems

iii. Application case

PCR reaction is prepared according to the following system

Components	Volume（ul）	Final Conc.
2×GUeasy Hot start Taq probe qPCR Master Mix	10	1×
Primer Mix（10uM）	N	0.1-0.5uM
Probe Mix（10uM）	N	50-250nM
UDG enzyme（1U/ul）	1	0.04U/ul
Template	1-5	-
ddH_2O	up to 20ul	-

PCR reaction

Temperature	Time	Numbers of cycle	Purpose
37℃	2-10min	1	Degradation of templates containing U
95℃	1-5min	1	DG inactivation, template predegeneration
95℃	5-15s	40	degeneration
60℃	30s		Annealing/Extension

iv. Storage condition

Shipped in ice-pack, stored at -20°C, valid for two years.

v. Product Specification

Product	Catalog#	Size	Activity
Uracil-DNA Glycosylase	U3004-02	200ul	200U

Gene Universal Inc.
Web: www.geneuniversal.com Tel: +1 302-235-9792 E-mail: sales@geneuniversal.com
Address: 200 Continental Dr. Suite 401, office 402, Newark DE 19713

Uracil-DNA Glycosylase	U3004-05	500ul	500U
Uracil-DNA Glycosylase	U3004-1	1ml	1000U

Gene Universal Inc.
Web: www.geneuniversal.com Tel: +1 302-235-9792 E-mail: sales@geneuniversal.com
Address: 200 Continental Dr. Suite 401, office 402, Newark DE 19713