NanoTaq II Hot-Start DNA Polymerase

24 AGU 2026

Catalog Number	Size	Concentration
DP003-0100	100 units	1 units/µl
DP003-0600	600 units	1 units/µl

Storage Conditions

Stable for up to 2 years at -20°C

Description

Bio-Helix NanoTaq II is an advanced hot-start enzyme DNA Polymerase developed with nano technology, building on the reliable performance of the original NanoTaq. It provides enhanced robustness and reliability for your PCR applications. NanoTaq II supports reactions at room temperature and cycling conditions using the same protocol as conventional Taq, while providing reliable amplification from low amounts of input DNA, efficient amplification across a broad range of GC content, and reduced nonspecific amplification. Compared with the original NanoTaq, NanoTaq II offers improved inhibitor resistance, stronger amplification signals, and enhanced amplification of long DNA fragments up to 5 kb.

Kit Content(s)

DP003-0100	NanoTaq II Hot-Start DNA Polymerase	100 µl x 1 vial
	10X PCR buffer	200 µl x 1 vial
DP003-0600	NanoTaq II Hot-Start DNA Polymerase	600 µl x 1 vial
	10X PCR buffer	1200 µl x 1 vial

Required materials but not provided

- A compatible PCR instrument
- Vortex or equivalent
- Microcentrifuge
- Plates and seals for your instruments

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Reaction Setup

1. For each 20 µl reaction, assemble the following in a 0.2 ml PCR tube on ice just prior to use:

	Volume	Final Conc.
DNA template	- µl	3 ng
Forward primer, 5-10 µM	- µl	0.1-0.5 µM
Reverse primer, 5-10 µM	- µl	0.1-0.5 µM
dNTP Mix (10 mM each dATP, dCTP, dGTP, dTTP)	0.4 µl	200 µM
10X PCR buffer	2 µl	-
NanoTaq II Hot-Start DNA Polymerase	1 µl	-
PCR Grade Water	Add to 20 µl	-
Total volume	20 µl	-

2. Mix gently. If necessary, centrifuge briefly and cap tubes.
3. Place them into the thermocycler and process for 30-35 cycles as follows:

Initial Denaturation	3 min at 95°C	
Denaturation	30 sec	30-35 cycles
Annealing	30 sec at the proper annealing temperature	
Extension	1 min at 72°C	
Final extension	5 min at 72°C	

Note: Optimal conditions for amplification will vary depending on the primers and thermal cycler used. It may be necessary to optimize the system for individual primers, template, and thermal cycler.

Template

Purified high-quality DNA is needed for a successful PCR reaction. The final concentration of cDNA template please refer to "Reaction Setup".

Storage Buffer

The enzyme is supplied in a storage buffer consisting of 20 mM Tris-HCl (pH 7.5), 0.1 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.5% Tween 20, and 50% (v/v) glycerol.

Unit Definition

One unit is defined as the amount of enzyme that will catalyze the incorporation of 10 nmol of dNTP into acid- insoluble form in 30 min at 72°C in a reaction containing 20 mM Tris-HCl pH 8.8, 55 mM KCl, 2 mM $MgCl_2$, 0.02 mg/ml BSA, 15 nM primed M13mp18 ssDNA, 0.8 mM dNTPs (0.2 mM each), 1.888 µM 3H-dTTP.

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