

HyperTAQ™ DNA Polymerase

Part Number: XXXX
Lot Number: NTC-XXXXXXX

Source: *E. coli*

Size: Bulk

Concentration: 5 U/μL

Storage Buffer: 25 mM Tris-HCl (pH 8.0), 150 mM NaCl, 0.05 mM EDTA, 1 mM DTT, 50% glycerol.

Reaction Buffer 10X: 200 mM Tris-HCl (pH 8.8), 100 mM KCl, 100 mM (NH₄)₂SO₄, 20 mM MgSO₄, 1% Triton X-100.

Unit Definition: One unit is defined as the amount of enzyme that will incorporate 15 nmol of dNTP into acid-insoluble material in 30 minutes at 75°C.

Purity: Single protein band at 96 kd (SDS-Page polyacrylamide gel electrophoresis).
No DNA contamination detected (PCR assay).

Contaminating Nuclease Activity:

Endonuclease Activity: Incubation of 10 units of HyperTAQ™ DNA Polymerase with 1 μg of supercoiled plasmid DNA for 16 hours at 37°C resulted in no detectable conversion to relaxed or linear forms by agarose gel electrophoresis.

Exonuclease Activity: Incubation of 10 units of HyperTAQ™ DNA Polymerase with 1 μg of 1kb ladder DNA for 16 hours at 37°C resulted in no smearing of bands on agarose gels.

Storage and Handling: -20°C

Recommended PCR Conditions:

Template DNA	pDNA: 1-10 ng; gDNA: 10-100 ng
10X Reaction Buffer	5 μL
dNTP mix	10 mmol of each
Primer 1	10 pmol
Primer 2	10 pmol
HyperTAQ™ DNA Polymerase	1 μL (5 U/μL)
H ₂ O	Q.S. to total volume (50 μL)
Total volume	50 μL

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