

Products	Cat #	Pack Size
SupraTherm™ DNA Polymerase	GC-022-0250	250 u
SupraTherm™ DNA Polymerase	GC-022-0500	500 u
SupraTherm™ DNA Polymerase	GC-022-1000	1000 u
SupraTherm™ DNA Polymerase	GC-022-5000	5000 u

DESCRIPTION

SupraTherm™ DNA Polymerase is a thermostable Taq DNA polymerase purified from the *Thermus aquaticus* strain by several rounds of liquid chromatography. The purity of SupraTherm™ Taq DNA Polymerase is more than 90% of the total protein in the preparation. Amplification of DNA fragments (100 bp to 5 kb) can be achieved with it. The enzyme has both, 5'-3' polymerase- and 5'-3'exonuclease activities. SupraTherm™ can add a single template-directed deoxyadenosin (A) residue to the 3' end of duplex PCR products and so allows easy and efficient ligation of PCR products in TA cloning vectors.

APPLICATION

The enzyme may be used for **PCR, thermosequencing** and for other research and diagnostic applications. SupraTherm™ DNA Polymerase is the best enzyme for everyday routine applications. The enzyme has **limited application for PCR with low-abundance template** (less than 100 DNA molecules of template). Please use for PCR of low abundance templates and for other more sophisticated techniques BioTherm™ DNA Polymerase.

CONCENTRATION

5 units/μl

UNIT DEFINITION

One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acid-insoluble form in 30 minutes at 72°C under the assay conditions (25 mM TAPS (tris-(hydroxy-methyl)-methyl-amino-propa-nesulfonic acid, sodium salt) pH 9.3 (at 25°C), 50 mM KCl, 2 mM MgCl₂, 1 mM β-mercaptoethanol) and activated calf thymus DNA as substrate.

STORAGE BUFFER

10 mM K-phosphate buffer pH 7.0, 100 mM NaCl, 0.5 mM EDTA, 1 mM DTT, 0.01% Tween 20;
50% glycerol (v/v)

10 x REACTION BUFER

160 mM (NH₄)₂SO₄, 670 mM Tris-HCl pH 8.8 (at 25°C), 15 mM MgCl₂, 0.1% Tween 20
The 10x reaction buffer(on request with or without MgCl₂) is delivered free of charge.

Cat. No. GC-002-006 1.5 ml 10x reaction buffer (contains 15 mM MgCl₂)

Cat. No. GC-002-007 1.5 ml 10x reaction buffer without MgCl₂ plus 50 mM MgCl₂ separately