



Taq Polymerase

Thermostable DNA Polymerase
Thermus aquaticus, recombinant, *E. coli*

Cat. No.	Amount
TAQ_100KU	100 kunits
TAQ_1000KU	1.000 kunits



Unit Definition: One unit is defined as the amount of the enzyme required to catalyze the incorporation of 10 nmol of dNTP into an acid-insoluble form in 30 minutes at 70 °C using hering sperm DNA as substrate.

For general laboratory use.

Shipping: shipped on blue ice

Storage Conditions: store at -20 °C

Additional Storage Conditions: avoid freeze/thaw cycles

Shelf Life: 12 months

Form: liquid

Concentration: 5 units/μl

Description:

Taq Polymerase is recommended for routine PCR applications (up to 4 kb fragment length), high throughput PCR or genotyping. The buffer system guarantees robust and reliable amplification results in almost all PCR applications. The Crystal Buffer contains a well-balanced ratio of potassium-, ammonium- and magnesium-ions to ensure high specificity and minimal by-product formation without the need of additional optimization steps.

Ruby Buffer additionally contains gel loading buffer and an inherent red dye. The red dye allows an easy visual control during PCR set-up and in combination with the density reagent the direct loading of the reaction product into the gel.

The enzyme replicates DNA at 72 °C. It catalyzes the polymerization of nucleotides into duplex DNA in 5'→3' direction in the presence of magnesium. It also possesses a 5'→3' polymerization-dependent exonuclease replacement activity but lacks a 3'→5' exonuclease (proof-reading) activity.

Content:

Taq Polymerase (red cap)

5 units/μl Taq DNA Polymerase in 20 mM Tris-HCl, 100 mM KCl, 0.1 mM EDTA, 1 mM DTT, 0.5 % Tween-20, 0.5 % Nonidet P-40, 50 % (v/v) Glycerol, pH 8.0 (25°C)

Ruby Buffer (black cap)

10 x conc. complete PCR buffer containing 200 mM Tris-HCl, KCl, (NH₄)₂SO₄ and 20 mM MgCl₂, red tracking dye and density reagent for gel loading

Crystal Buffer (green cap)

10 x conc. complete PCR buffer containing 200 mM Tris-HCl, KCl, (NH₄)₂SO₄ and 20 mM MgCl₂