



5 × PCR-Mastermix Taq-Polymerase

PCR-Mastermix is a premixed ready-to-use solution containing all reagents required for PCR (except template, primers and water)

Reagent Composition: PCR-Mastermix

Taq-DNA-Polymerase

5× Reaction Buffer B (400 mM Tris-HCl pH 9.4 – 9.5 at 25 °C, 100 mM (NH₄)₂SO₄, 0.1% w/v Tween-20)

12.5 mM MgCl₂, (= 2.5 mM in 1× solution)

1 mM dNTPs of each : 1× PCR solution – dATP, dGTP, dCCT und dTTP (= 200 μM/dNTP in 1× solution)

Source

Purified from an E.coli strain carrying Taq-DNA-Polymerase overproducing plasmid. The original enzyme has been isolated from *Thermus aquaticus*.

Associated activities

Taq-DNA-Polymerase is a highly processive 5' → 3'-DNA-polymerase with 5' → 3'-exonuclease activity. 3' → 5'-exonuclease activity lacks completely. Additionally, the enzyme adds nucleotides (mostly adenosines) to the 3'-ends of the DNA, so that TA-cloning is possible without further modifications.

Application & Quality control

Primer extension reaction: the enzyme is free of nicking and primer extension activities as well as of exonucleases and unspecific endonucleases. SDS/PAGE: 95 kD-band, purity > 98%. Activity and stability tested via PCR. The error rate per nucleotide per cycle is ~ 8.3 × 10⁻⁵; the accuracy ~ 1.2 × 10⁴. Estimated half life at 95 °C: 90 min.

Quantity	1.000 μl and 5 × 1.000 μl
Concentration	5× PCR Mastermix
Delivery	non-chilled
Storage	at -20 °C

Storing at room temperature up to 1 month possible without any loss of activity, between 2° and 8°C for 6 months

	5× PCR Mastermix	5× PCR Mastermix
Cat. No.	TK-005401	TK-005405
Quantity	1.000 μl	5 × 1.000 μl