BIO
REAGENTS

BIOVENDIS

HotStart Taq-DNA-Polymerase and Buffer Set

Source
Purified from an E.coli strain carrying Taq-DNA-Polymerase overproducing plasmid. The original enzyme has been isolated from Thermus aquaticus. CRYSTAL Hot-Start Taq-DNA-Polymerase is a modified form which is inactive at ambient temperature, having no polymerase activity. It is activated by a 15 minutes incubation at 95 – 97 °C. This prevents extension of non-specifically annealed primers and of primer-dimers formed at low temperatures during PCR setup.

Associated activities
Hot-Start Taq-DNA-Polymerase is a highly processive 5′ --> 3′-DNA-polymerase with 5′ --> 3′-exonuklease activity. 3′ --> 5′-exonuklease 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.

Scope of Delivery
100 µl HS Taq-DNA-polymerase (5 U/µl)
1500 µl Reaction Buffer A1 (10×)
1500 µl Reaction Buffer A2 (10×)
1500 µl Reaction Buffer B1 (10×)
1500 µl Reaction Buffer B2 (10×)
1500 µl MgCl2-Solution (25 mM)
200 µl Solution S (10×)

Quantity	500 Units
Concentration	5 Units / µl
Delivery	non-chilled
Storage	at -20°C

	HotStart-Taq-DNA-Polymerase Set
Cat. No.	**TK-005305**
Quantity	500