

Catalog No.: **D129-500**

Product Name: **HotStartTaq DNA Polymerase**

Concentration: 5 units/ μ l

Size: 500 units

Description:

The HotStart *Taq* DNA Polymerase is a chemically modified *Taq* DNA Polymerase, whose enzyme activities can only be activated after 3-5 minutes of incubation at 94°C. The HotStart *Taq* Polymerase uses amplification conditions for regular *Taq* DNA Polymerase, except no polymerase activity will be present before the onset of thermal cycling. This prevents nonspecific DNA amplification and primer dimer formation. The amplified products, up to 6Kb in length, contain single 3'-overhanging-A ends. This allows for TA cloning methods, if the amplified fragments need to be cloned.

Storage: -20°C

Quality Control:

HotStart *Taq* DNA Polymerase is highly purified and free of contaminating endonucleases, exonucleases and nicking activity. For endonuclease assay, 1 μ g of λ /Hind III DNA is incubated with 20 units of enzyme in assay buffer at 75°C for 16 hours with no visible contaminating activity observed. Also, every lot is tested for its performance consistency.

Unit Definition:

One unit incorporates 10nmol of dNTPs into acid-insoluble material in 30 minutes at 70°C.

Storage Buffer:

5 units/ μ l in 50mM Tris-HCl (pH8.0), 100mM NaCl, 0.1mM EDTA, 1mM DTT, 50% glycerol, 0.5% TritonX-100, and 0.5% NP-40.

10x Reaction Buffer 100mM KCl, 100mM Tris HCl (pH9.0), 80mM (NH₄)₂SO₄, and 1.0% Triton X-100. **(Mg⁺⁺free):** is optimized for use with 200 μ M dNTPs.

Magnesium Chloride:

25mM MgCl₂: In general, 1.5mM MgCl₂ is recommended; this may vary with different conditions and primer sets.

Related Products	Catalog No.
• dNTP PreMix	D116
• Taq Plus Master Mix	D124
• Tissue-Direct™PCR Kit	D300
• 100bp DNA Ladder	M107
• 1Kb DNA Ladder II	M108
• DNA SafeStain	C138
• Standard-Agarose	A113

Note: This Product Is For Research Use Only.