

Catalog No.: D118-1000
Product Name: *Taq* DNA Polymerase
Concentration: 5 units/ μ l
Size: 1x1000 units

Description:

Thermus aquaticus DNA Polymerase (*Taq* DNA Polymerase) is a thermostable enzyme which can replicate DNA at 74°C and remain active even after incubation at 95°C. It has very strong 5'-3' DNA polymerase activity with a fast extension rate. Although it lacks any 3'-5' exonuclease activity (and therefore proofreading ability), *Taq* DNA polymerase remains one of the most widely used enzymes in molecular biology. Lamda Biotech's bacterially derived *Taq* DNA Polymerase is unique for strong activity and low background in DNA amplification.

This enzyme is purified from bacteria. Users should be cautious when dealing with bacteria DNA sequences.

Storage: -20°C

Quality Control:

Taq DNA Polymerase is highly purified, free of contaminating endonucleases, exonucleases and nicking activity. For endonuclease assay, 1 μ g of Lamda/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 10nmoles of 4 radioactive labeled dNTPs into acid-insoluble material in 30 minutes at 74°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
• <i>Taq</i> 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.