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RedTaq DNA Polymerase

Cat. No.:	TPR-0200-A1	200 u Taq DNA Polymerase (5 u/μl), buffer A with MgCl₂
	TPR-1000-A1	1000 u Taq DNA Polymerase (5 u/μl), buffer A with MgCl₂
	TPR-0200-A0	200 u Taq DNA Polymerase (5 u/μl), buffer A without MgCl₂
	TPR-1000-A0	1000 u Taq DNA Polymerase (5 u/μl), buffer A without MgCl₂
	TPR-0200-B1	200 u Taq DNA Polymerase (5 u/μl), buffer B with MgCl₂
	TPR-1000-B1	1000 u Taq DNA Polymerase (5 u/μl), buffer B with MgCl₂
	TPR-0200-B0	200 u Taq DNA Polymerase (5 u/μl), buffer B without MgCl₂
	TPR-1000-B0	1000 u Taq DNA Polymerase (5 u/μl), buffer B without MgCl₂

Source: Isolated from a recombinant *E. coli* strain.

Description: RedTaq DNA polymerase is the Taq DNA polymerase colored with an inert red dye. Taq DNA polymerase is a thermostable enzyme of approximately 94 kDa isolated from eubacterium *Thermus aquaticus* strain YT-1. This unmodified enzyme replicates DNA at 72 °C. The enzyme catalyzes the polymerization of nucleotides into duplex DNA in the 5'-3' direction in the presence of magnesium ions and possesses a 5'-3' exonuclease activity. The enzyme is highly purified and is free of nonspecific endo- or exonucleases. Taq DNA polymerase adds extra 3'-dA nucleotide(s) overhangs to its reaction products.

RedTaq DNA polymerase contains a non-toxic and non-hazardous red dye for visual mixing verification. Loading buffer for gel electrophoresis is already included and the red dye makes tracking progress easy.

Concentration: 1000 units/ml

Storage conditions: 20 mM Tris-HCl (pH 7.6); 100 mM KCl; 0.1 mM EDTA; 1mMDTT; 0.5% Triton X-100; 50% glycerol.
Store at -20 °C.

Reaction buffer A1 with MgCl₂ (1x): 60 mM Tris-HCl (pH 8.5 at 25 °C); 1.5 mM MgCl₂; 25 mM KCl; 10 mM 2-mercaptoethanol; 0.1% Triton X-100

Reaction buffer A0 without MgCl₂ (1x): 60 mM Tris-HCl (pH 8.5 at 25 °C); 25 mM KCl; 10 mM 2-mercaptoethanol; 0.1% Triton X-100

Reaction buffer B1 with MgCl₂ (1x): 16 mM (NH₄)₂SO₄; 67 mM Tris-HCl (pH 8.8); 0.1% Tween 20; 2.5 mM MgCl₂

Reaction buffer B0 without MgCl₂ (1x):	16 mM (NH ₄) ₂ SO ₄ ; 67 mM Tris-HCl (pH 8.8); 0.1% Tween 20;
Unit definition:	One unit of enzyme catalyzes the incorporation of 10 nanomoles of dNTPs into adsorbable form in 30 minutes at 72 °C.
Unit assay conditions:	60 mM Tris-HCl (pH 8.5); 25 mM KCl; 1.5 mM MgCl ₂ ; 0.1% Triton X-100; 10 mM 2-mercaptoethanol; 200 μM dATP, dCTP, dGTP; 50 μM ³ H-TTP; 12.5 μg activated calf thymus DNA.
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