

DFS Taq-Blue DNA Polymerase

Description: DFS Taq-Blue DNA Polymerase is a thermostable enzyme of approximately 94 kDa isolated from eubacterium *Thermus aquaticus* strain YT-1(1). This unmodified enzyme replicates DNA up to 5 kb length at 72°C and catalyzes the polymerization of nucleotides into duplex DNA in 5'→3' direction and 5'→3' exonuclease activity. The enzyme is highly purified and free of nonspecific endo- or exonucleases. Taq DNA polymerase leaves single 3'-dA nucleotide overhangs on their reaction products. The enzyme is stained in blue to provide visual control of enzyme handling and reaction mixtures preparation.

QC-Testing:

- storage (7 days at room temperature) test – no change in performance
- absence of exonuclease, endonuclease and nickase activities
- PCR with various templates – human and bovine genomic DNA, Phage Lambda DNA
- “no primers” test with Lambda DNA cycling without primers;
- “no template” test with the primers complementary to the conservative region of 16S bacterial ribosomal genes
- **Concentration 5000 units/ml**

Applications DFS Taq-Blue is suitable for all regular applications – PCR, primer extension reactions etc. DFS Taq-Blue is free from bacterial DNA hence **for the work with bacterial DNA**. DFS Taq-Blue is recommended for reactions where visual control of reaction mixture preparation is desirable.

Sensitivity of PCR reaction is high. As few as 6 DNA molecules were detected.

Concentration 5000 units/ml

Storage buffer 10 mM K-phosphate, pH 7.4, 0.1 mM EDTA, 50% glycerol, 0.1% Triton X-100, 0.1% Tween 20, Bromphenol Blue 0,04%.

Unit definition One unit of activity is the amount of enzyme required to incorporate 10 nmoles of dNTP into acid-insoluble DNA fraction in 30 minutes at 72°C.

Storage buffer 10 mM K-phosphate, pH 7.4, 0.1 mM EDTA, 50% glycerol, 0.1% Triton X-100, 0.1% Tween 20.

Unit definition One unit of activity is the amount of enzyme required to incorporate 10 nmoles of dNTP into acid-insoluble DNA fraction in 30 minutes at 72°C.

Reaction buffer (x10) “incomplete”: 160 mM (NH₄)₂SO₄, 670 mM TrisHCl pH 8.8, 0.1% Tween-20

Reaction buffer (x10) “complete”: 160 mM (NH₄)₂SO₄, 670 mM TrisHCl pH 8.8, 0.1% Tween-20, 25 mM MgCl₂

Reaction buffer (x10) “complete II KCl”: 500 mM KCl, 100 mM TrisHCl pH 8.8, 0.1% Tween-20, 15 mM MgCl₂

Additionally provided: 1 Tube MgCl₂ (100 mM)

Recommended MgCl₂ concentration 1.5 mM – 6 mM

Storage condition temperature is -20°C

V AS24.11.2008

Catalog #	conc.	Pack size	Price, Euro
101007	5,0u/µl	500 u	99,00
101012	5,0u/µl	2500 u	409,00
101017	5,0u/µl	10000 u	1200,00
101022	5,0u/µl	50000 u	4000,00

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