

FS-T-540 AMPLITHERM HOT START DNA POLYMERASE

QUANTITY: 500 U.

DESCRIPTION: Amplitherm Hot Start is a modified form of Amplitherm Taq polymerase designed for Hot-Start-PCR. It is a highly processive 5'-3' DNA polymerase lacking 3'-5'-exonuclease activity. It is supplied in an inactive state that has no polymerase activity at ambient temperatures. This prevents extension of nonspecifically annealed primers and primer-dimers formed at low temperatures during PCR setup and the initial PCR cycle. The enzyme is highly purified and is free of nonspecific endo-or-exonucleases.

BUFFER Ph: **It is recommended to use buffers at pH 8.3 with a concentration of 1.5 mM MgCl₂**

CONCENTRATION: 5 units/μl.

UNIT DEFINITION: One unit of activity is the amount of enzyme required to incorporate 10 nmoles of dNTP into acid-insoluble material in 30 min at 72°C.

STORAGE BUFFER: 10 mM K-phosphate buffer pH 7.0, 100 mM NaCl, 0.5 mM EDTA, 1 mM DTT, 0.01% Tween 20, 50% glycerol (v/v)

10 X REACT.BUFFER: 160 mM (NH₄)₂SO₄, 670 mM Tris-HCl pH 8.3 (at 25°C), 15 mM MgCl₂, 0.1% Tween 20.
The 10x reaction buffer delivered with a separate vial of MgCl₂ free of charge.

SHIPPING: On blue ice

STORAGE TEMP.: -20°C for long term storage.

APPLICATIONS:

- Hot-Start-PCR
- PCR with high specificity

ACTIVATION: This polymerase is inactive until incubated 8 min at 95°C!!!
These activation conditions are extremely important!!!
The activation completely prevents nonspecific primer annealing and the formation of primer-dimers during setup.
It is also very important to pay attention to the actual temperature (95°C) inside the tube!!!
Hot-Start-PCR; PCR with high specificity Activity, SDS-PAGE purity, absence of endonucleases/nickases and exonucleases.

SHELF LIFE: 2 years from date of receipt under proper storage conditions.

QUALITY CONTROL:
Activity, SDS-PAGE purity, absence of endonucleases/nickases and exonucleases.