BioThermStar™ Hot Start Taq DNA Polymerase

Products	Cat #	Pack Size
BioThermStar™ Hot Start Taq DNA Polymerase	GC-045-0250	250 u
BioThermStar™ Hot Start Taq DNA Polymerase	GC-045-0500	500 u
BioThermStar™ Hot Start Taq DNA Polymerase	GC-045-1000	1000 u

DESCRIPTION

BioThermStar™ is a thermostable DNA polymerase purified from the *Thermus aquaticus* strain. BioThermStar™ is a modified form of the enzyme designed for Hot-Start-PCR and **is similair to AmpliTaq Gold™ DNA Polymerase**. It is a highly processive 5'-3' DNA polymerase lacking 3'-5'-exonuclease activity. The enzyme is highly purified and is free of nonspecific endo- or exonucleases.

By composition and application is this enzyme homologous to the AmpliTaq Gold from ABI.

BUFFER pH

We strongly recommend to use buffers at pH 8.3 with a concentration of 1,5mM $MgCl_2$!

ACTIVATION

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This DNA polymerase **is inactive until incubated 7-10 min at 95°C!!! These activation conditions are extremely important !!!** The activation completely prevents nonspecific primer annealing.

APPLICATION

- **Hot-Start PCR**
- PCR with **high specificity**
- **Real-Time PCR, TaqMan assays**

CONCENTRATION AND STORAGE TEMPERATURE

5 units/µl , -20°C

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 REACTION BUFER

160 mM $(NH_4)_2SO_4$, 670 mM Tris-HCl pH 8.3 (at 25°C), 15 mM $MgCl_2$, 0.1% Tween 20
The 10x reaction buffer (on request with or without $MgCl_2$) is delivered free of charge.
Please note the difference between BioTherm ™ and BioThermStar ™ buffers!

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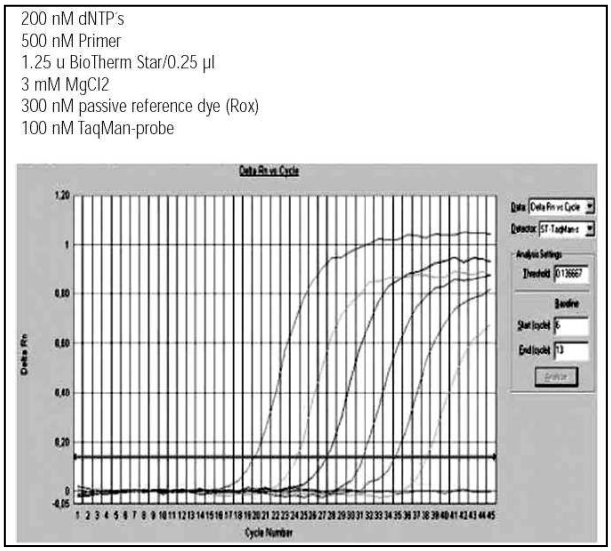
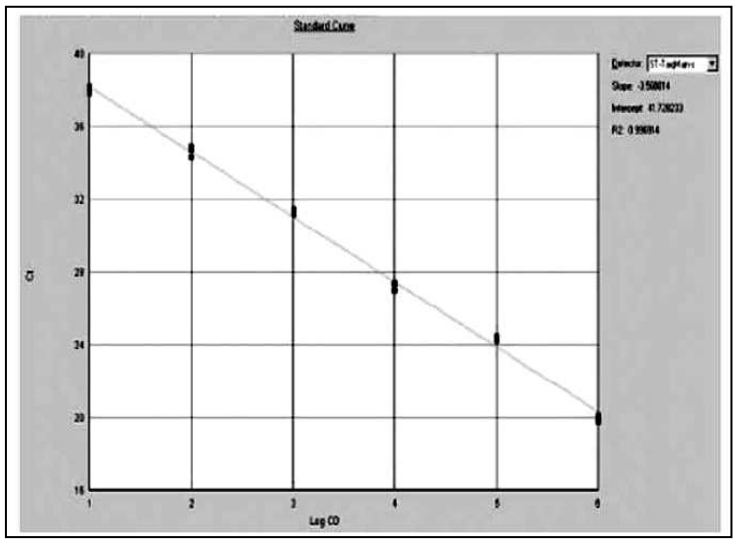
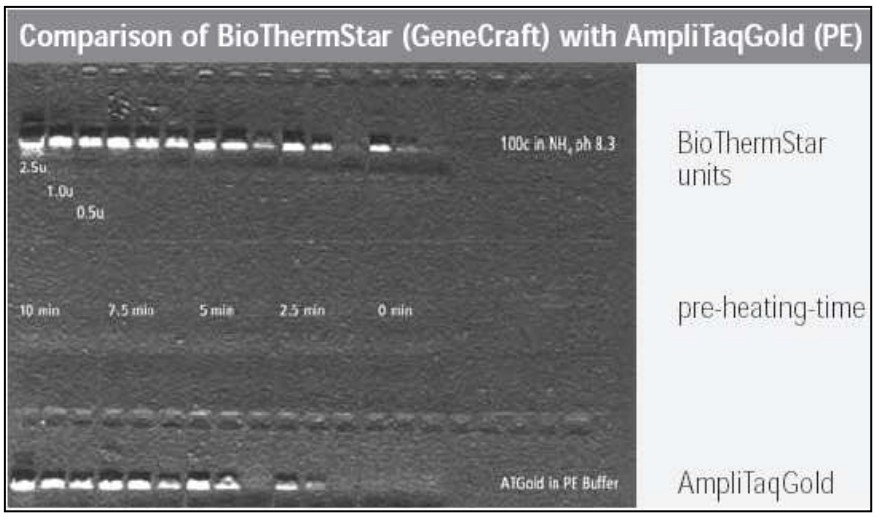
BioThermStar™ Taq DNA Polymerase in a TaqMan assay







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