

Certificate of Analysis

Product Name: Hotstart *Taq* DNA Polymerase

Catalog No.: L7052001 or L7052250 **Lot No.:** B504012

Shipping and Storage Condition: Shipping in Dry Ice and storing in -20°C

Shelf Life: 1 year from the date of receipt under proper storage conditions

Description

Hotstart *Taq* DNA polymerase is a modified thermostable enzyme that possesses a non-processive 5'-3' polymerase activity and double stranded specific 5'-3' exonuclease activity in the presence of magnesium.

Source

An *E. coli* strain that carries the *Taq* DNA Polymerase gene from *Thermus aquaticus* YTI.

Storage Buffer

50 mM Tris pH 8.0, 100 mM NaCl, 1 mM DTT, 50% glycerol, 0.1 mM EDTA, 1% TritonX-100.

Unit Definition

One unit is defined as the amount of enzyme required to incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 75°C.

Reaction Buffer (10X)

Tris pH 8.3, MgCl₂, and KCl.

Concentration: 5 units/μl.

Application: Primer extension; PCR reaction.

Quality Assurance: Free of endonucleases and exonucleases.

Reaction Condition (for 50 μl reaction)	
10x Hot Start PCR Buffer	5 μl
10 mM dNTP	4 μl
DNA Template (10ng-5ug)	x μl
Hot Start <i>Taq</i>	0.5 μl
Primers	x μl
H ₂ O	x μl
Total	50 μl

General Cycling Conditions			
Temperature	Time	Cycles	Description
95°C	10 min	1	Hot Start activation*
95°C	0.5 min	25-40	Denature
50°C - 65°C	0.5-1 min		Anneal
72°C	1 min/kb		Extend
72°C	5 min	1	Extend
4°C	Forever	1	

*Hotstart *Taq* DNA Polymerase requires an activation step of 10 min at 95°C

Components

1. 1X 1000 units 1x250 units of Hotstart *Taq* DNA Polymerase
2. 2x1,200 μl 1x500 μl 10X Hotstart PCR buffer.
3. One of Certificate of Analysis

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