# HP™ High Performance HotStart Taq DNA Polymerase

## Certificate of Analysis

Catalogue Number: HOTSTARTTAQ Unit: 250 units

Concentration : 5 units/ $\mu$ l Volume : 50  $\mu$ l

## Produce description:

A recombinant, thermostable, modified DNA polymerase from Thermus aquaticus, expressed in *E.coli* for use in PCR.

## Applications:

This enzyme is designed for use in Hot Start PCR applications. The enzyme is supplied in an inactive state and requires activating. This is achieved by the addition of a single 10 min. 95 °C pre-incubation step at the beginning of the end-users thermal cycle program.

Stability: The undiluted enzyme mix is stable when stored at -20°C

#### 10X PCR Buffer:

150 mM Tris-HCI (pH 8.0 at 25 °C), 500 mM KCI) include 15 mM MgCl<sub>2</sub>.

#### Storage Buffer:

20 mM Tris-HCl (pH 8.0), 100 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 0.5% Nonidet-P40 (v/v), 0.5% Tween-20 (v/v) and 50% glycerol.

## **Unit Definition:**

One unit is defined as the amount of enzyme that will incorporate 10 mmole of dNTP's into acid insoluble material in 30 minutes at 70 °C under the assay conditions below.

#### **Unit Assay Conditions:**

25 mM TAPS (pH 9.3 at 25°C), 50 mM KCl, 2 mM MgCl<sub>2</sub>, 1 mM β-mercaptoethanol, 200  $\mu$ M each dATP, dCTP(a mix of unlabelled and [ $^3$ H] dCTP), dGTP, dTTP, 12.5  $\mu$ g activated calf thymus DNA, in a total volume of 50  $\mu$ l.

## **Quality Control**:

Each lot is tested for activity in PCR. Using DNA as template we guarantee an amplification of at least 10<sup>5</sup>.

For Research Using Only.

Please do not hesitate to contact us if you have any questions.

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