

Made in USA

Catalog Number 600195

Product Name Taq2000 DNA Polymerase

Quantity 100 U (sufficient for forty 50-µl reactions)

Concentration 5 U/µl

Certified By Sarah Jandle

Quality Controlled By Tricia Molina

Shipping Conditions Shipped on dry ice.

Storage Conditions Store at -20°C upon receipt.

Description Taq2000 DNA polymerase is a recombinant, highly-purified Taq DNA polymerase isolated from the thermophilic bacteria,

Thermus aquaticus. It is a DNA-dependent DNA polymerase which has a temperature optimum of 80°C and remains active

when heated to 95°C.

10x Reaction Buffer 100 mM Tris-HCl (pH 8.8)

500 mM KC1 15 mM MgC1₂ 0.01% (w/v) gelatin

Unit Activity One unit of activity is the amount of enzyme required to incorporate 10 nanomoles of [³H]dTTP in 30 minutes at 72°C.

Test Conditions Taq2000 DNA polymerase was tested by polymerase chain reaction (PCR) using multiple primer-template systems. The

resulting amplification products were visualized on an agarose gel to verify the production of discrete products.

Contamination Test

Conditions
PCR Protocol

Taq2000 DNA polymerase is tested for the absence of detectable nonspecific nuclease and DNA contamination.

For a 50-µl reaction, add the following components in order to a nuclease-free microcentrifuge tube:

 $x~\mu l~of~dH_2O~for~a~final~reaction~volume~of~50~\mu l$

5 μl of 10× Taq Polymerase Buffer

 $0.4~\mu l$ of 100~mM dNTP mix (25 mM each dNTP)

 $1~\mu l$ of $10~\mu M$ forward primer $1~\mu l$ of $10~\mu M$ reverse primer

100 ng genomic DNA or 5-30 ng vector DNA 0.5 μl of *Taq2000* DNA Polymerase (5 U/μl)

Mix the reaction gently, then place the reaction in a thermocycler and run the following PCR amplification program:

Cycles	<u>Temperature</u>	<u>Duration</u>
1	95°C	1 minute
	95°C	30 seconds
30	Primer T _m -5°C	30 seconds
	72°C	1 minute/kb
1	72°C	10 minutes

Storage Buffer

Taq2000 DNA polymerase is supplied in 20 mM Tris-HCl (pH 8.0), 100 mM KCl, 1 mM dithiothreitol (DTT), 0.5% (v/v) Igepal CA-630, 0.5% (v/v) Tween&20, 0.1 mM EDTA and 50% (v/v) glycerol.

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Endnotes

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