600862 0006280971

Agilent Technologies

Lot	0006280971

Catalog Number	600862
Product Name	Paq5000 Hotstart DNA Polymerase
Expiration Date	2016-04-30
Quantity	1000 U
Certified By	Dana Faver
Quality Controlled By	Tricia Molina
Shipping Conditions	Shipped on dry ice.
Storage Conditions	Store at -20°C upon receipt.

Concentration
5 U/µl

Description
Paq5000 Hotstart DNA Polymerase* is a new alternative to *Taq* DNA Polymerase that provides higher PCR yields. The hot start feature allows room temperature PCR assembly, provides reduced background, and improves detection sensitivity. In addition, Paq5000 Hotstart DNA Polymerase is optimized for fast cycling conditions to save time and increase throughput. Paq5000 Hotstart DNA Polymerase is ideal for endpoint PCR for up to 6 kb genomic targets. It is not recommended for high fidelity cloning or 5′ nuclease assays.

10x Reaction Buffer
Use only the provided 10× Paq5000 Hotstart Reaction Buffer. Changing the reaction buffer may adversely affect enzyme performance. The 10× buffer provides a final 1× Mg^{2+} concentration of 2 mM.

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

Test Conditions
Paq5000 Hotstart DNA Polymerase was tested by polymerase chain reaction (PCR) assays using multiple primer-template systems. The resulting amplification products were visualized on an agarose gel to verify the production of discrete products of the expected size.

Contamination Test Conditions
Paq5000 Hotstart DNA Polymerase is tested to confirm the absence of detectable nonspecific nuclease and DNA contamination.

PCR Protocol
To a nuclease-free microcentrifuge tube, add the following components in order:

x µl of dH_2O for a final reaction volume of 50 µl
5 µl of 10× Paq5000 Hotstart Reaction Buffer
0.4 µl of 100 mM dNTP mix (25 mM each dNTP)
1 µl of 10 µM forward primer
1 µl of 10 µM reverse primer
100 ng genomic DNA or 5–30 ng vector DNA
0.5 µl of Paq5000 Hotstart DNA Polymerase (5 U/µl)

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

Cycles	Temperature	Duration
1	95°C	2 minutes
	95°C	20 seconds
30	Primer T_m-5°C	20 seconds
	72°C	30 seconds/kb
1	72°C	5 minutes

Notice To Purchaser

This product is provided under an agreement between Bio-Rad Laboratories and Agilent Technologies, and the manufacture, use, sale or import of this product is subject to EP Pat. No. 1 283 875 B1, owned by Bio-Rad Laboratories, Inc. Purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in PCR (but not real-time PCR) in the Research Field including all Applied Research Fields (including but not limited to forensics, animal testing, and food testing).

Endnotes

Purchase of this product conveys to the purchaser the non-transferable right under these patents to use the product for research use only.

* U.S. Patent Nos. 6,734,293; 6,444,428; 6,183,997 and 5,489,523.

Made in USA

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