Certificate of Analysis

Taq Full Hot Start DNA Polymerase PCR Kit

Catalog No.	Amount	Lot Number
639231	100 rxns	Specified on product label.

Description

The *Taq* Full Hot Start DNA Polymerase Enzyme Mix is a mixture consisting of *Taq* Full DNA Polymerase and TaqStart® Antibody, a monoclonal antibody that inhibits Taq Full at ambient temperatures. The *Taq* Full DNA Polymerase is a full-length recombinant version of the *Thermus aquaticus* (*Taq*) strain YT1 DNA polymerase. It is a broad-ranging enzyme suitable for a variety of general PCR applications. One unit of enzyme incorporates 10 nmols of dNTPs into acid-insoluble material within 30 min at 74°C. Each kit contains enzyme mix, optimized PCR buffer containing 20 mM $MgCl_2$, dNTPs, and additional $MgCl_2$ for 100 PCR reactions (100 units) of 50 µl each. Control Genomic DNA (calf thymus) and Primer Mix are also provided for amplifying a 407-bp control amplicon within the bovine pancreatic trypsin inhibitor gene.

Package Contents

- 20 µl *Taq* Full Hot Start DNA Polymerase Mix (5 units/µl)
- 1.25 ml 10X *Taq* Full PCR Buffer
- 100 µl dNTP Mix (10 mM each)
- 500 µl $MgCl_2$ (50 mM)
- 10 µl Control Genomic DNA Template (100 ng/µl)
- 20 µl Control Primer Mix (10 µM each)
- 4 x 1.25 ml PCR-Grade Water

Storage Conditions

- Store all components at –20°C.

Shelf Life

- 1 year from date of receipt under proper storage conditions.

Shipping Conditions

- Dry ice (–70°C)

Product Documents

Documents for our products are available for download at **takarabio.com/manuals**
The following documents apply to this product:

- *Taq* Full DNA Polymerase User Manual
- *Taq* Full and *Taq* Full Hot Start DNA Polymerase Mixes Protocol-at-a-Glance

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(101817)

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Quality Control Data

Raw Material Quality Control

Purified *Taq* Full DNA polymerase was tested for enzymatic activity and PCR performance. Endonuclease and DNA contamination assays were also performed.

Functional Quality Control

Amplification from a genomic DNA template:

Taq Full Hot Start DNA polymerase was tested in a 50 µl PCR reaction using 1 µl (100 ng) of calf thymus genomic DNA as a template and control primers specific for a 407-bp fragment of the bovine pancreatic trypsin inhibitor (BPTI) gene (0.4 µM each). Conditions were set at:

1 cycle	94°C, 3 min
25 cycles	94°C, 30 sec 68°C, 1 min
1 cycle	68°C, 5 min

5 µl of PCR product was run on a 1.2% TAE/agarose gel to confirm the presence of a 407-bp band with minimal background. PCR product concentration was measured by fluorometry. The yield was determined to be >5 ng/µl.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

Notice to Purchaser

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NOTICE TO PURCHASER:

Our products are to be used for research purposes only. They may not be used for any other purpose, including, but not limited to, use in drugs, in vitro diagnostic purposes, therapeutics, or in humans. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without prior written approval of Takara Bio USA, Inc.

Your use of this product is also subject to compliance with the licensing requirements listed below and described on the product´s web page at http://www.takarabio.com. It is your responsibility to review, understand and adhere to any restrictions imposed by these statements.

TRADEMARKS:

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10/18/2017