# Certificate of Analysis



## Tag Full DNA Polymerase Enzyme Mix

Catalog Nos. Amount **Lot Number** 

639234 5,000 units Specified on product label.

## Description

The Tag Full DNA Polymerase is a full-length recombinant version of the Thermus aquaticus (Tag) strain YT1 DNA polymerase. It is a broad range 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. The Taq Full DNA Polymerase Enzyme Mix contains the Taq Full DNA Polymerase as well as optimized PCR Buffer containing 20 mM MgCl<sub>2</sub>.

### **Package Contents**

- 1 ml Taq Full DNA Polymerase Mix (5 units/µl)
- 3 x 1.25 ml 10X Taq Full PCR Buffer

### **Storage Conditions**

Store all components at  $-20^{\circ}$ C.

### **Shelf Life**

1 year from date of receipt under proper storage conditions.

### **Shipping Conditions**

Dry ice  $(-70^{\circ}\text{C})$ 

### **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

## 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.

Taq Full DNA Polymerase Enzyme Mix

## **Functional Quality Control**

Amplification from a genomic DNA template:

Taq Full DNA polymerase was tested in a 50  $\mu$ l PCR reaction using 1  $\mu$ l (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  $\mu$ M 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  $\mu$ l 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/ $\mu$ l.

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

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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.

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