Certificate of Analysis

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PRODUCT: TITANIUM™ Taq PCR Kit

CATALOG No. 639210

AMOUNT: 100 PCR rxns

LOT NUMBER: 6030526

STORAGE CONDITIONS
Store at –20°C

SHELF LIFE
1 year from date of receipt under proper storage conditions.

SHIPPING CONDITIONS
Blue ice (4°C) or dry ice (–70°C)

DESCRIPTION
TITANIUM™ Taq is a mixture consisting of a 5' exonuclease-deficient Taq polymerase, and TaqStart™ Antibody, a monoclonal antibody which inhibits Taq at ambient temperatures. TaqStart Antibody provides automatic hot start PCR. Enough enzyme and buffer are supplied for 100 PCR reactions of 50 µl each. An aliquot of calf thymus DNA is provided as a control template for amplifying a 407-bp fragment of the BPTI gene using the Control Primer Mix.

PACKAGE CONTENTS
- 100 µl 50X TITANIUM™ Taq DNA Polymerase
- 600 µl 10X TITANIUM™ Taq PCR Buffer
- 120 µl 50X dNTP Mix (10 mM each)
- 100 µl Control DNA Template (100 ng/µl)
- 100 µl Control Primer Mix (10 µM each)
- 4 x 1.25 ml PCR-Grade Water

OTHER
- User Manual (PT3304-1)

FOR RESEARCH USE ONLY

QUALITY CONTROL
See back of page.

Notice to Purchaser

This product is intended to be used for research purposes only. It is not to be used for drug or diagnostic purposes, nor is it intended for human use. Clontech products may not be resold, modified for resale, or used to manufacture commercial products without written approval of Clontech Laboratories, Inc.

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(PA651775)

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RAW-MATERIAL QUALITY CONTROL

Purified TITANIUM Taq DNA Polymerase was tested for enzymatic activity and PCR performance. Endonuclease, exonuclease, and DNA contamination assays were also performed.

PCR performance:
TITANIUM Taq was serially diluted and each serial dilution was used in a separate PCR reaction with λ genomic DNA as a template. Optimal dilution per reaction was determined as the amount of enzyme required to amplify >20 ng/µl of a 3.5-kb λ fragment with minimal background.

FUNCTIONAL QUALITY CONTROL

Amplification from a cDNA template:
TITANIUM Taq was tested using 5 µl of Marathon-Ready Human Placenta cDNA (Cat. No. 639311) and 0.5 µl of 20 µM Transferrin Receptor Primers in a 50-µl PCR reaction. Conditions were set at:

1 cycle	95°C, 1 min
30 cycles	95°C, 15 sec 68°C, 1.5 min

5 µl of the PCR product was run on a 1.2% TAE/agarose gel to confirm the presence of a 1.3-kb band with minimal background. PCR product concentration was measured by fluorometry.

Yields were determined to be 0.8 µg of DNA/50-µl reaction.

Amplification from a genomic DNA template:
TITANIUM Taq was tested in a 50-µl PCR reaction using 1 µl (100 ng/µl) of calf thymus genomic DNA as a template and primers specific for a 407-bp fragment of the BPTI gene (10 µM each). Conditions were set at:

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

Yields were determined to be 1.8 µg of DNA/50-µl reaction.

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