Certificate of Analysis

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PRODUCT: TITANIUM™ Taq PCR Kit

CATALOG No. 639211

AMOUNT: 30 PCR rxns

LOT NUMBER: 6090019

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)

FOR RESEARCH USE ONLY

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 30 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
- 30 µl 50X TITANIUM™ Taq DNA Polymerase
- 200 µl 10X TITANIUM™ Taq PCR Buffer
- 40 µl 50X dNTP Mix (10 mM each)
- 30 µl Control DNA Template (100 ng/µl)
- 30 µl Control Primer Mix (10 µM each)
- 2 x 1.25 ml PCR-Grade Water

OTHER
- User Manual (PT3304-1)

QUALITY CONTROL
See back of page.

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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 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. 639211) and 0.5 µl of 20 µM Transferrin Receptor Primers in a 50-µl PCR reaction. Conditions were set at:

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

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 1.0 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:

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

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 1.5 µg of DNA/50-µl reaction.