

Titanium® *Taq* DNA Polymerase

Catalog No.
639260

Amount
40 rxns

Lot Number
Specified on product label.

Description

Titanium *Taq* is an enzyme blend containing a 5' exonuclease-deficient, N-terminal deletion mutant of *Taq* DNA Polymerase and TaqStart® Antibody, a monoclonal antibody that inhibits *Taq*-derived DNA polymerases at ambient temperatures, allowing automatic hot start PCR. Enough enzyme and buffer are supplied for 40 PCR reactions of 50 µl each.

Package Contents

- 40 µl 50X Titanium *Taq* DNA Polymerase
- 240 µl 10 X Titanium *Taq* PCR Buffer

Storage Conditions

- Store 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:

- Titanium *Taq* PCR Kit Protocol-At-A-Glance (PT3304-2)

Quality Control Data

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* DNA Polymerase was serially diluted and the diluted samples were used in separate PCR reactions with λ DNA as a template. The optimal dilution per reaction was determined as the amount of enzyme required to amplify >20 ng/µl of a 3.5 kb target with minimal background.

Takara Bio USA, Inc.

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Functional Quality Control

Amplification from a cDNA template

Titanium *Taq* DNA Polymerase was tested in a 50- μ l PCR reaction using 5 μ l of Marathon®-Ready Human Placenta cDNA (Cat. No. 639311) as a template and primers (0.2 μ M each) specific for a 1.3-kb fragment of the transferrin receptor gene. Conditions were set at:

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

5 μ l 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. The yield was determined to be >5 ng/ μ l.

Amplification from a genomic DNA template

Titanium *Taq* DNA Polymerase Mix was tested in a 50- μ l PCR reaction using 100 ng of calf thymus genomic DNA as a template and primers (0.4 μ M each) specific for a 407-bp fragment of the bovine pancreatic trypsin inhibitor (BPTI) gene. Conditions were set at:

1 cycle	94°C, 3 min
30 cycles	94°C, 30 sec
	68°C, 1.5 min

5 μ 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 >15 ng/ μ l.

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

Titanium® Taq DNA Polymerase (Sample-Not for Sale)

CATALOG NO.

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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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