

## Titanium® *Taq* PCR Kit

### Catalog Nos.

639210  
639211

### Amount

100 rxn  
30 rxn

### Lot Number

Specified on product label.  
Specified on product label.

### 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

<u>639210</u> (100 rxns)	<u>639211</u> (30 rxns)	
100 µl	30 µl	50X Titanium <i>Taq</i> DNA Polymerase
600 µl	200 µl	10X Titanium <i>Taq</i> PCR Buffer
120 µl	40 µl	50X dNTP Mix (10 mM each)
100 µl	30 µl	Control DNA Template (100 ng/µl)
100 µl	30 µl	Control Primer Mix (10 µM each)
4 x 1.25 ml	2 x 1.25 ml	PCR-Grade Water

### Storage Conditions

- Store at –20°C.

### Expiration Date

- Specified on product label.

### Shipping Conditions

- Dry ice

### Product Documents

Documents for our products are available for download at [takarabio.com/manuals](http://takarabio.com/manuals)

The following documents apply to this product:

- Titanium *Taq* PCR Kits User Manual
- Titanium *Taq* PCR Kit Protocol-At-A-Glance

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#### Takara Bio USA, Inc.

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## 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* was serially diluted and each serial dilution used in a separate PCR reaction with  $\lambda$  genomic DNA as a template. Optimal dilution per reaction was determined as the amount of enzyme required to amplify  $>20$  ng/ $\mu$ l of a 3.5 kb  $\lambda$  fragment with minimal background.

### Functional Quality Control

#### Amplification from a cDNA template

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

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

5  $\mu$ 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/ $\mu$ l.

#### Amplification from a genomic DNA template

Titanium *Taq* was tested in a 50  $\mu$ l PCR reaction using 100 ng of calf thymus genomic DNA as a template and primers specific for a 407 bp fragment of the BPTI gene (0.4  $\mu$ M each). Conditions were set at:

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

5  $\mu$ l of PCR product was electrophoresed 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  $\geq 15$  ng/ $\mu$ l.

## Titanium® Taq PCR Kit

### CATALOG NOS.

639210 & 639211

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