

# 50X Titanium® *Taq* SP (Glycerol-Free)

Amount

250 µl

Catalog No.	
638517	

Lot Number Specified on product label.

## Description

Titanium *Taq* SP (Glycerol-Free) DNA Polymerase is a mixture containing a 5' to 3' exonuclease-deficient *Taq* polymerase and TaqStart® Antibody, a monoclonal antibody that inhibits *Taq* and *Taq*-derived polymerases at ambient temperatures. The presence of TaqStart Antibody in the polymerase mix allows automatic hot-start PCR. Enough enzyme and buffer are supplied for 250 reactions of 50 µl each.

#### Package Contents

- 250 µl 50X Titanium *Taq* SP (Glycerol-Free)
- 1.5 ml 10X Titanium Taq PCR Buffer

#### **Storage Conditions**

• Aliquot on arrival and store at  $-70^{\circ}$ C.

#### Shelf Life

• 1 year from date of receipt under proper storage conditions.

#### **Storage Buffer**

• 15 mM Tris-HCl, 0.05 mM EDTA, 75 mM KCl, 0.5% P

### **Shipping Conditions**

• Dry ice  $(-70^{\circ}C)$ 

#### **Product Documents**

Documents for Clontech® products are available for download at <u>www.clontech.com/manuals</u> The following documents apply to this product:

• Titanium Taq SP DNA Polymerase Protocol-At-A-Glance

## **Quality Control Data**

#### **Raw-Material Quality Control**

Purified Titanium *Taq* SP (Glycerol-Free) DNA Polymerase was tested for enzymatic activity and PCR performance. Endonuclease, exonuclease, and DNA contamination assays were also performed.

#### **Functional Quality Control**

#### Amplification from a cDNA template:

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

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# Certificate of Analysis

50X Titanium Taq SP (Glycerol-Free)

1 cycle	95°C for 1 min
30 cycles	95°C for 15 sec
-	68°C for 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 product 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* SP (Glycerol-Free) was tested in a 50- $\mu$ l PCR reaction using 100 ng of calf thymus genomic DNA as template, and primers (0.4  $\mu$ M each) specific for a 407-bp fragment of the bovine pancreatic trypsin inhibitor (BPTI) gene. Cycling conditions were set at:

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

5  $\mu$ l of PCR product was run on a 1.2% TAE/agarose gel to confirm the presence of a 407-bp product with minimal background. PCR product concentration was measured by fluorometry. The yield was determined to be >15 ng/ $\mu$ l.

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