

Titan HotTaq Power Mix, Ready to Load

Cat. No.	Pack Size	Conc. (MgCl ₂)
BTS0018	0.1 ml (25 reactions) SAMPLE	12.5 mM
BT10801	1 ml (250 reactions)	12.5 mM

Storage & Shipping:

Store at -20°C, shipping at room temperature.

Shipping and temporary storage for up to 1 month at room temperature or storage for up to 6 months at 2-8°C has no detrimental effects on the quality of Titan HotTaq Power Mix.

Reagents Provided:

- **Titan HotTaq DNA Polymerase**
- **Proofreading enzyme**
- **5x Reaction Buffer**
- **12.5 mM MgCl₂**
1x PCR solution – 2.5 mM MgCl₂
- **2 mM dNTPs of each**
1x PCR solution – 200 μM dATP, 200 μM dCTP, 200 μM dGTP and 200 μM dTTP
- **BSA**
- **Blue dye**
Migration equivalent to 3.5-4.5 kb DNA fragment
- **Yellow dye**
Migration rate in excess of primers in 1% agarose gel: <35-45 bp
- **Compound that increases sample density for direct loading**

Description:

Titan HotTaq Power Mix is a premixed ready to load solution containing: all reagents required for PCR (except template, primers and water), compound needed for direct loading onto agarose gel and two tracking dyes to follow the electrophoresis.

Titan HotTaq Power Mix contains two enzymes – Titan HotTaq DNA polymerase and a proofreading polymerase.

These enzymes together have both the 5'→3' exonuclease activity as well as the 3'→5' proofreading activity.

Unit definition:

One unit is defined as the amount of enzyme required to catalyze the incorporation of 10 nmol of dNTPs into an acid-insoluble form in 30 minutes at 74°C.

Recommendations:

Reaction setup at room temperature is highly recommended for Titan HotTaq Power Mix.

We recommend using Titan HotTaq Power Mix in any PCR application that will be visualized by agarose gel electrophoresis and AtlasSight DNA Stain or Ethidium bromide staining.

Recommended PCR reaction mix:

Component	Volume	Final conc.
Titan HotTaq Power Mix	4 µl	1x
Forward primer (10 pmol/µl)	0.2-0.6 µl	0.1-0.3 µM
Reverse primer (10 pmol/µl)	0.2-0.6 µl	0.1-0.3 µM
Template DNA	x µl	5-50 ng/µl
Add H ₂ O	Up to 20 µl	

Recommended PCR cycles:

Cycle step	Temp.	Time	Cycles
Initial denaturation	95°C	12-15 min	1
Denaturation	95°C	10-20 s	25-30
Annealing	54-66°C	30-60 s	
Elongation	72°C	20 s-4 min	
Final elongation	72°C	5-10 min	

IMPORTANT: To activate the polymerase, include an incubation step **at 95°C for 12 - 15 minutes** at the beginning of the PCR cycle.

Safety warnings and precautions:

This product is designed for research purposes and *in vitro* use only. According to common laboratory safety practice, it is recommended to wear protective clothing, gloves and safety glasses. Please refer to www.bioatlas.com for Material Safety Data Sheet of the product.

Some applications this product is used in may require a license which is not provided by the purchase of this product. Users should obtain the license if required.