

## Titan Taq 5x PCR Mix, Ready to Load

Cat. No.	Pack Size
BTS0007	100 µl (25 reactions) SAMPLE
BT10502	1 ml (250 reactions)

### 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 Taq 5x PCR Mix Ready to Load.

### Application:

- Suited for a wide range of PCR assays

### Description:

Titan Taq 5x PCR Mix Ready to Load is a premixed ready-to-use solution containing: all reagents required for PCR (except template, primers and water), additional compound needed for direct loading onto agarose gel and two tracking dyes (blue and yellow) that allow to monitor progress during electrophoresis.

### Reagent Composition:

- **Titan Taq DNA polymerase**
- **5x Reaction Buffer 1**  
*0.4 M Tris-HCl, 0.1 M (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 0.1% w/v Tween-20*
- **12.5 mM MgCl<sub>2</sub>**  
*1x PCR solution – 2.5 mM MgCl<sub>2</sub>*
- **1 mM dNTPs of each**  
*1x PCR solution – 200 µM dATP, 200 µM dCTP, 200 µM dGTP and 200 µM dTTP*
- **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.**

### Recommended PCR reaction mix:

Component	Volume	Final conc.
Titan Taq 5x PCR Mix Ready to Load	10 µl	1x
Forward primer (10 pmol/µl)	0.5-1.5 µl	0.1-0.3 µM
Reverse primer (10 pmol/µl)	0.5-1.5 µl	0.1-0.3 µM
Template DNA	x µl	5-50 ng/µl
Add H <sub>2</sub> O	Up to 50 µl	

**Recommended PCR cycles:**

Cycle step	Temp.	Time	Cycles
<b>Initial denaturation</b>	<b>95°C</b>	<b>3-5 min</b>	<b>1</b>
Denaturation	95°C	20-40 s	25-30
Annealing	54-66°C	30-60 s	
Elongation	72°C	40 s-4 min	
Final elongation	72°C	5-10 min	

**Recommendations:**

**We recommend using** Titan Taq 5x PCR Mix Ready to Load in any PCR application that will be visualized by agarose gel electrophoresis and ethidium bromide staining.

We do not recommend using the Titan Taq 5x PCR Mix Ready to Load for PCR reactions where detergent free buffer system is required (detergent free 5x PCR Mix available upon request).

Titan Taq 5x PCR Mix Ready to Load is not recommended for use in applications where spectro-photometric measurements (absorbance or fluorescence) are necessary because yellow and blue dyes can interfere with these applications.

**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](http://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.*