

Titan HotTaq Probe qPCR Mix (ROX)

Cat. No.	Pack Size
BTS0012	100 µl (25 reactions) SAMPLE
BT11001	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 has no detrimental effects on the quality of Titan HotTaq Probe qPCR Mix (ROX).

Application:

- Detection and quantification of DNA and cDNA targets
- Profiling gene expression
- High Resolution Melt (HRM) Analysis
- Microbial detection
- Viral load determination

Reagent Composition:

- **Titan HotTaq DNA polymerase**
- **5 x qPCR buffer P**
- **15 mM MgCl₂**
1 x PCR solution – 3 mM MgCl₂
- **dNTPs**, including dTTP to improve reaction sensitivity and efficiency compared to dUTP
- **ROX dye**

Description:

Titan HotTaq Probe qPCR Mix (ROX) is optimized for real-time quantitative PCR assays and contains all the components necessary to perform qPCR, with the exception of template, primers, and probe. The qPCR Mix contains optimized components and Titan HotTaq DNA polymerase supplied in a proprietary reaction buffer that enables detection of low copy number targets.

Titan HotTaq DNA polymerase is activated by a 15 min incubation step at 95°C. This prevents extension of non-specifically annealed primers and primer-dimers formed at low temperatures during qPCR setup.

ROX Dye:

ROX is an internal passive reference dye used to normalize the fluorescent reporter signal generated in qPCR.

Recommended qPCR reaction mix:

Component	Volume	Final conc.
5 x Titan HotTaq Probe qPCR Mix	4 µl	1x
Primer Forward (10 pmol/µl)	0.4-0.8 µl	200-400 nM
Primer Reverse (10 pmol/µl)	0.4-0.8 µl	200-400 nM
Probe	1 µl	100-250 nM
DNA template	1-5 µl	1-50 ng/µl
H ₂ O PCR grade	up to 20 µl	
Total	20 µl	

Recommended qPCR cycles:

Cycle step	Temp.	Time	Cycles
Initial denaturation	95°C	15 min	1
Denaturation	95°C	15 s	40
Annealing/Elongation	60°C	60 s	

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