

*High-fidelity One-Step taqman Probe qRT-PCR Assay for RNA Detection*

Catalog	Size	RXN
TBS4009-01	1 mL	200
TBS4009-05	5 mL	1000
TBS4009-20	20 mL	4000

**DESCRIPTION**

Tribo™ One-Step Probe qRT-PCR Kit is a complete qRT-PCR system, containing all reagents necessary for both reverse transcription (RT) and Taqman probe-based PCR amplification to occur in a single qPCR reaction tube. The One-Step qRT-PCR kit is an amalgamation of two key formulations of an RT Enzyme Mix and a Taqman Probe qPCR Master Mix. The kit contains stabilizers and enhancers to optimize the two reactions in a real-time “single step”. This One-Step qRT-PCR kit offers the end-users an efficient, easy to use, and reliable alternative to conventional “two-step” sequential qRT-PCR. This kit is the best choice for Covid-19 detection.

**APPLICATIONS**

This kit is used for real-time RT-PCR amplification. It can be used for Covid-19 detection.

**KEY FEATURES**

- ❖ One-step complete qRT-PCR in a single tube.
- ❖ Reduce contamination in the operating process.
- ❖ Accurate detection and quantification of a target gene through real-time PCR.
- ❖ 4x concentration makes it easier to adjust the sample size in a one-tube reaction.

**KIT CONTENTS**

Catalog	Component	Size	RXN
TBS4009-01	4x probe qRT-PCR, no ROX	1 mL	200
TBS4009-05		5 mL	1000
TBS4009-20		20 mL	4000

*Note: ROX will be added in the RT-PCR mix based on client request.*

**STORAGE CONDITIONS**

Store all components at -20°C in a non-frost-free freezer. Shelf life is 12 months after recipient. The kit is shipped on ice.

**PROTOCOL**

RT-PCR should be assembled in a nuclease-free environment. RNA sample preparation, reaction mixture assembly, PCR and subsequent reaction analysis should be performed in separate areas. The use of “clean”, automatic pipettors designated for PCR and aerosol resistant barrier tips are recommended.

1. Prepare the following reaction mixture in PCR tube on ice

Components	Reaction Volume: 20 µl	Concentration
Total RNA	Variable	5 pg - 1 µg/rxn
qRT-PCR Mix (4x)	5 µl	1X
Forward Primer (10 µM)	0.6 µl	300 nM
Reverse Primer (10 µM)	0.6 µl	300 nM
Taqman probe	Variable	Variable
Nuclease-free H <sub>2</sub> O	Up to 20 µl	

**Note:**

1. Gene specific primers and probe must be used for RT-qPCR amplification.
2. Please ensure no salt crystals are present in the RT-qPCR Mix before use. If salt crystals are observed, mix until crystals are completely dissolved and absent.
2. Gently mix and ensure all the components are at the bottom of the amplification tube. Centrifuge briefly if needed.
3. Program the thermal cycler so that cDNA synthesis is followed immediately by qPCR amplification.

Step	Temperature	Duration	Cycle(s)
cDNA Synthesis	50°C	20 mins	1
Pre-Denaturation	95°C	1 mins	1
Denaturation	95°C	15 secs	40
Annealing	60°C	60 secs	

**Recommendations for Optimal Results**

- Aliquot reagents to avoid contamination and repeated freeze-thaw cycles.
- Start reaction as soon as the reaction mixture is prepared and always keep the reaction mixture chilled in an ice box prior to qRT-PCR reaction.

**RELATED PRODUCTS**

One-step Sybr qRT-PCR (TBS4007)  
 2xSybr Green qPCR Mix (TBS4001)  
 2xTaqman Probe qPCR Mix (TBS4002)  
 2x Taqprobe RT-qPCR Mix (TBS4008)  
 RNA isolation Kit (TBS6001)  
 Ribospine vRD II Kit (Viral RNA isolation from cell-free fluid, plasma, Serum,Urine) (322-150)  
 Exgene Viral DNA/RNA Isolation Kit (128-150)

*For Research Use Only*