

## ***Mycobacterium tuberculosis* TaqMan Lyophilized Probe/Primer and Control Set - 100 Reactions**

**Product # TM42110L**

Component	Product # TM42110L (100 Reactions)	Volume upon Reconstitution
<i>Mycobacterium tuberculosis</i> Primer & Probe Mix (Lyo)	1 (Lyophilized)	1 X 280 µL
<i>Mycobacterium tuberculosis</i> Positive Control (Lyo)	1 (Lyophilized)	1 X 150 µL
Nuclease-Free Water	1 x 1.25 mL	N/A

### **Applications**

Lyophilized TaqMan Probe/Primer and Control Set for *Mycobacterium tuberculosis* detection using real-time PCR based on the use of TaqMan® technology.

### **Storage Conditions and Product Stability**

- All kit components should be stored at -20°C upon arrival.
- Once reconstituted, repeated thawing and freezing (>2 times) of the Positive Control should be avoided, as this may affect the performance of the assay. If the reagents are to be used only intermittently, they should be frozen in aliquots.
- All kit components can be stored for 2 years after the date of production without showing any reduction in performance.

### **Precautions and Disclaimers**

- Do not store the kit at room temperature. Store the kit at -20°C upon arrival. Please refer to **Storage Conditions and Product Stability** for further information.
- This product is designed for research purposes only. It is not intended for human or diagnostic use.

### **Customer-Supplied Reagents and Equipment**

- Appropriate Real-Time PCR Instrument with FAM and HEX filter channel.

### **Procedure**

- **Reconstitution of *Mycobacterium tuberculosis* Primer & Probe Mix (Lyo)**

Note: **(Failure to dissolve the Primer & Probe Mix completely might affect the efficiency of the PCR assay).**

1. Add **275 µL** Nuclease Free Water (provided in the kit) and let it rehydrate at room temperature for 5 minutes.
2. Briefly vortex to dissolve the lyophilized Primer & Probe Mix.
3. Once completely dissolved, briefly spin down the Primer & Probe Mix tube
4. The Primer & Probe Mix is now ready to setup the PCR. Store the reconstituted Primer & Probe Mix at -20°C if not used for PCR setup immediately.

- **Reconstitution of *Mycobacterium tuberculosis* Positive Control (Lyo)**

Note: **(Failure to dissolve the Positive Control completely might affect the efficiency of the PCR assay).**

1. Add **120 µL** Nuclease Free Water (provided in the kit) and let it rehydrate at room temperature for 5 minutes.
2. Use a pipette with a sterile tip to dissolve the lyophilized Positive Control.
3. Once completely dissolved, briefly vortex and spin down the Positive Control tube
4. The Positive Control is now ready to setup the PCR. Store the reconstituted Positive Control at -20°C if not used for PCR setup immediately.

- **Recommended Reaction Conditions:**

1. *Mycobacterium tuberculosis* Primer Mix (2 µL per 20 µL PCR reaction)
2. *Mycobacterium tuberculosis* Positive Control (2-8 µL per 20 µL PCR reaction)

**Description**

The positive control is a synthetic oligonucleotide containing a partial *Mycobacterium tuberculosis* gene fragment.

**Table 1. Recommended TaqMan PCR Assay**

One Step RT-PCR Cycle	Step	Temperature	Duration
<i>Cycle 1</i>	Step 1	95°C	3 min
<i>Cycle 2 (40x)</i>	Step 1	95°C	15 sec
	Step 2	60°C	30 sec

**Table 2. Interpretation of Assay Results**

FAM (Target detection)	HEX (PCR validation)	Result
+	+	Positive
-	+	Negative
-	-	PCR inhibited

Related Products	Product #
<i>Mycobacterium tuberculosis</i> TaqMan PCR Lyophilized Kit	TM42150L
Urine DNA Isolation Kit (Slurry Format)	48800, 27100

**Technical Support**

Contact our Technical Support Team between the hours of 9:00 and 5:30 (Eastern Standard Time) at (905) 227-8848 or Toll Free at 1-866-667-4362. Technical support can also be obtained from our website or through email at [techsupport@norgenbiotek.com](mailto:techsupport@norgenbiotek.com).