# QuantiFERON®-TB Gold Plus — blood collection

# Option 1: Draw blood directly into QFT®-Plus Blood Collection Tubes

#### Blood collection

1. Label QFT-Plus Blood Collection Tubes appropriately.

**Important:** QFT-Plus Blood Collection Tubes should be at room temperature (17–25°C) at the time of blood collection.

- 2. Collect 1 ml of blood by venipuncture directly into each of the QFT-Plus Blood Collection Tubes.
  - 2a. As 1 ml tubes draw blood relatively slowly, keep the tube on the needle for 2–3 seconds once the tube appears to have completed filling.
  - 2b. The black mark on the side of the tubes indicates the validated range of 0.8 to 1.2 ml. If the level of blood in any tube is outside of the indicator mark, a new blood sample should be obtained.
  - 2c. If a "butterfly needle" is being used to collect blood, a "purge" tube should be used to ensure that the tubing is filled with blood prior to the QFT-Plus Blood Collection Tubes being used.





## Tube shaking

Immediately after filling the tubes, shake them ten (10) times just firmly enough to make sure the
entire inner surface of the tube is coated with blood. This will dissolve antigens on tube walls.
 Important: Overly vigorous shaking may cause gel disruption and could lead to aberrant results.

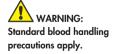


#### Shipping and incubation

- 1. QFT-Plus tubes must be transferred to a 37°C ±1°C incubator within 16 hours of collection.
- 2. Option 1 Incubate QFT-Plus Blood Collection Tubes at the blood collection site
  - 2a. If tubes are not incubated immediately after blood collection, remix tubes by inverting 10 times immediately prior to incubation.
  - 2b. Incubate tubes UPRIGHT at  $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$  for 16-24 hours.
    - Technical tip: Label tubes as "Incubated".
  - 2c. After incubation, tubes may be held between 4°C and 27°C for up to 3 days prior to centrifugation at the testing laboratory.
- 3. Option 2 Incubate QFT-Plus Blood Collection Tubes at the testing laboratory
  - 3a. Ship tubes to the testing laboratory at  $22^{\circ}C \pm 5^{\circ}C$ .

**Technical tip:** label tubes as "Not Incubated".







# Option 2: Draw blood into a lithium-heparin tube

#### Blood collection

1. Label lithium-heparin tubes appropriately

Important: Tubes should be at room temperature (17–25°C) at the time of blood collection.

2. Fill a lithium-heparin blood collection tube (minimum volume 5 ml) and gently mix by inverting the tube several times to dissolve the heparin.



# Shipping

### 1. Option 1 - Lithium-Heparin Tube Room Temperature Storage and Handling

1a. Blood collected in a lithium-heparin tube must be maintained at room temperature (22°C ± 5°C) for no more than 12 hours from the time of collection prior to transfer to QFT-Plus Blood Collection Tubes and subsequent incubation.



#### 2. Option 2 - Lithium-Heparin Tube Refrigerated Storage and Handling

- 2a. Prior to refrigeration, blood drawn into a lithium-heparin tube must be held at room temperature (17–25°C) between 15 minutes and 3 hours after collection.
- 2b. Ship the lithium-heparin tube to the testing laboratory at 2-8°C.
- 2c. Blood drawn into lithium-heparin tube may be refrigerated (2–8°C) for 16 to 48 hours prior to transfer to QFT-Plus Blood Collection Tubes at the testing laboratory.



### Transfer of blood specimen to QFT-Plus Blood Collection Tubes

 Procedures for transferring blood specimen from lithium-heparin tubes to the QFT-Plus Blood Collection Tubes at the testing site are described in the QuantiFERON-TB Gold Plus – assay quick guide.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at **www.qiagen.com** or can be requested from QIAGEN Technical Services or your local distributor.

For comprehensive instructions for use, refer to the QFT-Plus ELISA package insert, available in multiple languages, at **www.QuantiFERON.com**.

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