

## QuantiFERON<sup>®</sup>-TB Gold

### Filling QuantiFERON-TB Gold blood collection tubes

The QuantiFERON-TB Gold assay (QFT<sup>®</sup>) measures the Interferon-gamma (IFN- $\gamma$ ) response in whole blood stimulated with antigen. The kit uses specialized QFT blood collection tubes. The following is a guide for blood collection into these tubes. (Catalogue No: T0590-0301)

### Filling Tubes

One QFT test uses the following three collection tubes:

- |                                |              |
|--------------------------------|--------------|
| Nil tube, negative control     | (Grey cap)   |
| TB Antigen tube                | (Red cap)    |
| Mitogen tube, positive control | (Purple cap) |

These procedures should be followed for optimal results:

- Tubes should be at 17–25°C at the time of blood filling.
- Collect 1 mL of blood by venipuncture directly into each QFT blood collection tube, preferably in the order Nil, TB-Antigen and Mitogen.

*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 to ensure that the correct volume is drawn.*

- The black mark on the side of the tubes indicates the 1 mL fill volume. QFT blood collection tubes have been validated for volumes ranging from 0.8 to 1.2 mL. If the level of blood in any tube is not close to the indicator line, it is recommended to obtain another blood sample. As a guide, the picture on the lower right illustrates the approved fill range.

*If a “butterfly needle” is used, prime tubing with a “purge” tube before filling the QFT tubes.*



Figure 1. (L-R) Nil, TB Antigen, and Mitogen tubes



Figure 2. Approved fill volume range; image for guidance only



## Mixing Tubes

Antigens have been dried onto the inner wall of the blood collection tubes. It is essential that the tubes' contents be thoroughly mixed with the blood. Thorough mixing will dissolve the heparin, preventing clotting, and allow resolubilization of the stimulating antigen. Mixing is performed by shaking the tubes ten (10) times just firmly enough to ensure that the entire inner surface of the tube is coated with blood.

- The tubes must be transferred to a  $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$  incubator as soon as possible, and within 16 hours of collection. Prior to incubation, maintain tubes at room temperature ( $22^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ) Do not refrigerate or freeze the blood samples. Tubes should be incubated **upright**.

*If the blood is not incubated immediately after collection, mixing of the tubes by inverting 10 times must be performed immediately prior to incubation.*

- Over-energetic shaking may cause gel disruption and could lead to aberrant results.



Figure 3. A correctly mixed tube

Further information on QFT tube handling can be found at [www.QuantiFERON.com](http://www.QuantiFERON.com).

Full instructions for use can be found in the QFT Package Insert, available in up to 25 different languages, at [www.QuantiFERON.com](http://www.QuantiFERON.com).

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For more information, please contact the office nearest you or visit [www.QuantiFERON.com](http://www.QuantiFERON.com).

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