

Lithium Heparin Single Tube Blood Collection

Option for use with QuantiFERON®-TB Gold Plus

QuantiFERON-TB Gold Plus (QFT®-Plus) is a unique approach to detection of TB infection. The test is performed by collection of 1 ml of whole blood into each of four QFT-Plus blood collection tubes.

- The gray cap tube (Nil) serves as the negative control and adjusts for background levels of IFN- γ .
- The green cap tube (TB1) and yellow cap tube (TB2) assess the interferon-gamma (IFN- γ) response to TB-specific antigens.
- The purple cap tube (Mitogen) serves as a positive control, which can be useful to indicate the immune status of the person being tested and that correct blood handling has occurred.

Prior to placing blood samples into the 4 QFT-Plus blood collection tubes, blood may be collected in a single generic blood collection tube containing lithium heparin as the anticoagulant.



1. Collect blood in a single tube

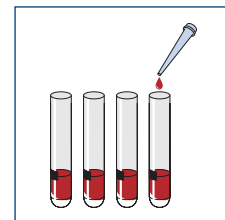
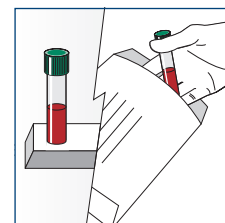
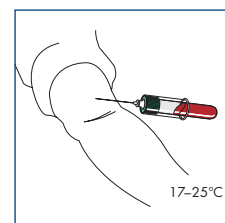
Fill a **generic single lithium heparin blood collection tube** with ≥ 5 ml of blood. Gently mix by inverting the tube several times to dissolve the heparin. Label the tube appropriately, including the time of blood collection. Use only lithium heparin as a blood anticoagulant, as other anticoagulants interfere with the QFT-Plus assay.

2. Ship to laboratory

Ship tube to laboratory at $22^{\circ}\text{C} \pm 5^{\circ}\text{C}$. Shipping should occur as soon as possible after collection, as incubation of blood in QFT-Plus tubes must be initiated at the laboratory within 16 hours of blood collection.

3. Transfer blood to QFT-Plus tubes in the laboratory

Immediately prior to transferring blood from the lithium heparin tube into the QFT-Plus tubes, ensure that the blood is thoroughly mixed by gentle inversion. Remove caps from the 4 QFT-Plus tubes and dispense 1.0 ml aliquots into each tube (to the center of the black mark on the side of the QFT-Plus tube label). Replace the tube caps securely and mix as per QFT-Plus Instructions for Use.* Ensure aseptic technique and **appropriate safety procedures** are used.



* QuantiFERON-TB Gold Plus (QFT-Plus) ELISA Package Insert, Rev. 02, February 2015.1083163.

Advantages of single tube QFT-Plus blood collection

Collecting blood samples with a single tube provides greater flexibility and convenience.

- Blood samples can be shipped in the generic tube without further processing at the collection site
- Single tube blood collection offers laboratories greater control over correct specimen handling

Features	QFT-Plus
Single-tube blood collection Only one standard lithium heparin tube is required for blood collection	<input checked="" type="checkbox"/>
Universal sample volume Sample volume is always the same regardless of the patient's age or immune status	<input checked="" type="checkbox"/>
Whole blood assay No need to isolate peripheral blood mononuclear cells (PBMC)	<input checked="" type="checkbox"/>
Minimal blood volume required Only 5 ml is required Volume of blood collected is not dependent on PBMC counts	<input checked="" type="checkbox"/>
Objective results Provides an objective, reproducible result unaffected by subjective interpretation No borderline/equivocal results requiring re-testing with a new patient sample	<input checked="" type="checkbox"/>
Flexible storage and shipping options After collection, blood can be stored for up to a maximum of 16 hours at room temperature (22°C ± 5°C) Overnight shipping is possible without impacting the test results	<input checked="" type="checkbox"/>
Standard incubation and ELISA equipment Incubation is carried out in a standard incubator at 37°C ± 1°C Assay requires no additional equipment other than a standard ELISA reader	<input checked="" type="checkbox"/>
Transport/Storage After incubation: Blood samples can be stored/transported for a max. of 3 days at 4°C – 27°C After incubation & centrifugation: Plasma samples can be stored up to 4 weeks at 4°C or, if harvested, below –20°C for extended periods	<input checked="" type="checkbox"/>
Analysis software free of charge	<input checked="" type="checkbox"/>
Full automation available	<input checked="" type="checkbox"/>

QFT-Plus is an in vitro diagnostic aid for detection of *Mycobacterium tuberculosis* infection (including disease) and is intended for use in conjunction with risk assessment, radiography, and other medical and diagnostic evaluations. QFT-Plus results alone cannot distinguish active TB disease from latent infection. QFT-Plus Package Inserts, available in multiple languages, as well as up-to-date licensing information and product-specific disclaimers can be found at www.QuantiFERON.com.

Note: These images are for illustrative purposes only. For comprehensive instructions, please refer to the QFT-Plus package inserts.

Trademarks: QIAGEN®, Sample to Insight®, QFT®, QuantiFERON® (QIAGEN Group). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law. PROM-8528-001 © 2015 QIAGEN, all rights reserved.

Ordering www.qiagen.com/contact | Technical Support support.qiagen.com | Website www.qiagen.com