Unprecedented clinical value

QuantiFERON®-TB Gold Plus – original CD8 T cell technology





Sample to Insight

It's time to test and treat TB

Testing and treating latent TB infection is the most effective way to prevent transmission of TB and eventually eradicate the disease.

The global impact of TB (1):



Systematic TB testing saves lives

The WHO and ECDC recommend systematic latent TB testing for key risk groups (2, 3):





Receiving Anti TNF treatment People living with HIV



tracing



Conditional testing and treatment is also recommended for healthcare workers and communal settings:



workers





Prisoners and community setting

QuantiFERON-TB Gold Plus

Designed to meet the needs of your practice.



- Single-visit
- Unaffected by the BCG vaccine
- Simple blood draw and lab-based testing, with rapid and objective interpretation
- Flexible collection options of undiluted whole blood into QFT®-Plus Blood Collection Tubes or into a single lithium or sodium heparin tube
- The only IGRA enabling measurement of CD8 T cell responses

For 1000 BCG-vaccinated patients who are not infected (4, 5):



Now you can see the full picture

CD4 and CD8 T cells both play a critical role in the immune response to TB infection. Thanks to its unique and proprietary design, QuantiFERON-TB Gold Plus is the only test that can elicit distinct CD4 and CD8 T cell responses from whole blood patient samples.

The World Health Organization has acknowledged the potential for additional clinical insights using QFT-Plus (6):

"A new generation assay, the QuantiFERON-TB Plus has been developed to stimulate gamma interferon production by both CD4 and CD8 T-cells. First results indicate that the CD8 T-cell response may be able to identify people at greater risk of progression to active TB."

Table 1. Features and benefits of the QFT-Plus to	est
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Feature	Benefit
Proprietary antigens stimulating both CD4 and CD8 T cell responses	Studies show that CD8 T cell responses are detectable in active TB subjects with HIV co-infection and in young children (7–9)
Differentiation of CD8 T cell responses, which may be associated with recent TB exposure and may be more frequently detected in patients with active TB disease (10–12)	Potential to provide additional clinical information supporting patient surveillance and treatment decisions
 Flexible blood collection options Collect directly into the QFT-Plus tubes Collect to a single Lithium or Sodium Heparin tube 	Choose a collection method that fits your practice, including protocols allowing up to 53 hours for sample handling prior to incubation

Research studies suggest potential new clinical insights based on CD8 T cell responses

Two meta-analyses on QFT-Plus performance confirm increased test sensitivity compared to the previous generation of the QFT test, attributing this improvement to the CD8 T cell technology in the TB2 tube (13, 14).



"The inclusion of TB2 peptides increased the sensitivity of QFT-Plus assay without affecting the specificity of the test." (14)

In two research studies analyzing test performance in patients co-infected with HIV, QFT-Plus sensitivity for active TB was found to be unaffected by HIV-status (15, 16).



"The assay's overall sensitivity was maintained, regardless of HIV status." (15)

Research studies also indicate that the presence and strength of the CD8 T cell response may provide new insights when considering a patient's risk of recent TB infection and disease (7, 17).



"[The] difference between TB2 and TB1 was higher in smear-positive [pulmonary tuberculosis] compared to smear-negative patients." (7)



"[Our research study] suggests a role for the differential value between the two tubes as a proxy for recent infection." (17)

For more information visit www.QuantiFERON.com

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QFT-Plus is an in vitro diagnostic aid for detection of *Mycobacterium tuberculosis* infection. QFT-Plus is an indirect test for *M. tuberculosis* infection (including disease) and is intended for use in conjunction with risk assessment, radiography, and other medical and diagnostic evaluations. QFT-Plus package inserts as well as up-to-date licensing information and productspecific disclaimers can be found at **www.QuantiFERON.com**.

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