H·O·D
HOUSE of DIAGNOSTICS

Patient Name :	Demo Patient Name	**Lab No :**	Demo Visit No
Age / Sex :	28 Y / M	**Registration On :**	21-Jan-25 18:39
Referred By :	DEMO HOSPITAL	**Patient ID :**	UHID.DEMO.001
Centre :	HOD Head Office		

Quantiferon TB Gold Plus

Sodium Heparin Sample

Accession No: DEMO_BARCODE **Collected On:** 21-Jan-25 18:39 **Received On:** 21-Jan-25 19:15 **Approved On:** 23-Jan-25 17:30

Observation	Result	Unit	Biological Ref. Interval	Method
Quantiferon TB Gold Plus Result	Positive			
Test Details (For Reference Only)				
TB1 Antigen Minus Nil Tube	0.05	IU/ML		ELISA
TB2 Antigen Minus Nil Tube	0.72	IU/ML		ELISA
Tb Nil Tube	0.06	IU/ML		ELISA
Mitogen Minus Nil Tube	1.49	IU/ML		ELISA

Interpretation:

Result	Remarks
Positive	Indicates IFN-Gamma response to M. tuberculosis antigens in patient's sample suggestive of probable exposure to M. tuberculosis.
Negative	Indicates absence of IFN-Gamma response to M. tuberculosis antigens in patients sample but does not preclude the possibility of M. tuberculosis infection or tuberculosis disease.
Indeterminate	Seen in HIV positive individuals with CD4+ count ≤ 200 cells/ml, in children less than 4 years of age, recent illness, presence of heterophile antibodies in the patients sample, compromised immune status & recent vaccinations.

Significance:

Tube	Remarks
NIL	Represents negative control which rules out the preexisting immune response due to heterophile antibody or non specific gamma interferon production.
MITOGEN minus NIL	Represents positive control demonstrating successful lymphocyte activity.
TB1 minus NIL	Detects CD4+ lymphocyte reactivity, specially stimulated by the TB1 antigens.
TB2 minus NIL	Detects both CD4+ and CD8+ lymphocyte reactivity,stimulated by TB2 antigens. Introduction of TB2 tube has increased the sensitivity of test particularly in elderly, immunocompromised and HIV positive subjects, hence acts as a surrogate marker for active disease.

Note:

1. This is an indirect assay for Mycobacterium tuberculosis infection including disease & is intended for use in conjunction with clinical findings and other diagnostic tests.
2. False-positive results may occur in patients with prior infection with M marinum, M szulgai, or M kansasii.
3. False-negative results can be due to stage of infection (e.g., sample taken prior to the development of cellular immune response), co-morbid conditions that affect immune functions, low lymphocyte counts, reduced or absent activation of immune response to TB antigens or other immunological variables. CDC recommends repeat test after 8 - 10 weeks in case of high suspicion of tuberculosis.
4. The magnitude of the measured IFN-gamma level cannot be correlated with stage or degree of infection, level of immune responsiveness, likelihood for progression to active disease or to monitor TB therapy.

Comments: TB Gold Plus is a recommended screening test for those patients being placed on biologic treatment and other immunosuppressive therapy. In patients suffering from LTBI, it is critical to screen for TB infection prior to initiation of immunosuppressive treatment, including biologic agents for autoimmune diseases as introduction of biologics can cause a latent tuberculosis infection (LTBI) to activate due to immunosuppression. This test has two distinct TB antigen tubes: TB Antigen Tube 1 (TB1) and TB Antigen Tube 2 (TB2). Both tubes contain peptide antigens from the MTB-complex-associated antigens. The TB1 tube contains peptides from ESAT-6 and CFP-10 that are designed to elicit CMI responses from CD4+ T-helper lymphocytes. TB2 tube contains an additional set of ESAT-6 and CFP-10 peptides specifically targeted to the induction of CMI responses from CD8+ cytotoxic T lymphocytes. In the natural history of MTB infection, CD4+ T cells play a critical role in immunological control through their secretion of the cytokine IFN-γ. MTB-specific CD8+ cells have been detected in subjects with LTBI and with active TB disease. Specific CD8+ T lymphocytes may be associated with a recent MTB exposure. In addition, MTB-specific CD8+ T cells producing IFN-γ have also been detected in active TB subjects with HIV co-infection and in young children with TB disease. In children less than 5 years of age, Tuberculin skin test (TST) is recommended over IGRA. TB Gold Plus should be performed concurrently or within 3 days after placing a skin test to avoid the boosting phenomenon. The systematic boosting of the IGRA assay response is seen in TST-positive individuals when it is performed 2 to 4 weeks after TST. It is advisable that the sample for TB Gold Plus should be drawn on the same day of vaccination or 4 to 6 weeks after the administration of a live-virus vaccine.

Remarks: *Please correlate results with clinical conditions.*

This is a Demo Signature
and the doctor's signature should appear here

In case of any unexpected or alarming results, please contact us immediately for re-confirmation, clarifications, and rectifications, if needed.

Scan to Validate