

M. tuberculosis complex (MTC) and M. tuberculosis complex + non-tuberculous mycobacteria (MTD) Real Time PCR Detection Kits

- ▶▶ **Tuberculosis (TB)** is a contagious, chronic, and granulomatous disease caused by bacilli of the genus *Mycobacterium*, included in the so-called *Mycobacterium tuberculosis complex* (*M. tuberculosis*, *M. bovis* and *M. africanum*) and by other species of opportunistic mycobacteria potentially pathogenic for human being. This disease **was declared in 1993 as a “global health emergency”** due to its magnitude as a public health problem.

It is estimated that **one third of the world population has latent tuberculosis**; that is, these people are infected with the bacillus, but (still) have not become ill or can transmit the infection. In this clinical state, TB bacilli can remain inactive for years (latent TB). However, when the immune system weakens, the latent infection can be reactivated. In a person infected with HIV, the risk of reactivation of latent TB is more than 10% per year, compared to a lifetime risk of 10-20% for HIV negative people.

- ▶▶ Infection occurs through the **inhalation** of the pathogen and are transmitted by people with active pulmonary TB. After inhalation, the bacteria deposit in the alveoli and spread through the lymphatic circulation. Further dissemination to other organs is achieved through hematogenous circulation. The most common form of the disease is pulmonary TB, although tuberculous meningitis, miliary TB (disseminated), intestinal TB, lymphadenitis, osteomyelitis, and Pott's disease (affected bones) also occur.

When the active form of the disease occurs, the symptoms (cough, fever, night sweats, weight loss, etc.) can be mild for many months. As a result, patients sometimes take time to seek medical attention and transmit the bacteria to others. Over a year, a tubercular patient can infect 10 to 15 people through close contact. If they do not receive the appropriate treatment, up to two thirds of the tubercular patients die.

- ▶▶ The application of molecular techniques for diagnosis and typing, more sensitive, specific and quick than traditional tests, allow to improve the knowledge of the epidemiology of the infection and facilitate decisions for its control.



“Ready & Easy-to-use” kits.
Lyophilised product



Transport and storage at **room temperature**.
Shelf-life: 24 months



Validated according to **ISO 13485**
and **CE marked**

***M. tuberculosis* complex (MTC) and
M. tuberculosis complex + non-tuberculous mycobacteria (MTD) Real Time PCR Detection Kits**

Mycobacteria are a group of microorganisms that constitute one of the most serious health problems worldwide.

Three groups can be defined within the genus *Mycobacterium*:

1. *Mycobacterium tuberculosis* complex that produces TB and is formed by the species *M. tuberculosis*, *M. bovis* (including *M. bovis* BCG), *M. africanum*, *M. microti*, *M. caprae*, *M. canettii*, *M. pinnipedii*, *M. mungi* and *M. suricattae*.
2. *M. leprae* that produces leprosy.
3. Other non-tuberculous mycobacteria (NTM) that are opportunistic and produce non-tuberculous symptoms with less pathogenic power.

VIASURE has two different solutions:

▶▶ ***M. tuberculosis* complex Real Time PCR Detection Kit (MTC)**

Designed for the qualitative detection of DNA from *Mycobacterium tuberculosis* complex (MTBC) species in respiratory samples (sputum) from individuals suspected of TB infection.

▶▶ ***M. tuberculosis* complex + non-tuberculous mycobacteria Real Time PCR Detection Kit (MTD)**

Designed for specific detection of DNA of the genus mycobacterium, the *M. tuberculosis* complex (MTBC) and the specie *M. tuberculosis* in mycobacterial culture, clinical isolates of mycobacteria and sputum (with positive or negative acid- fast bacilli (AFB) smear) from patients with signs and symptoms of TB infection.

References.

VIASURE *M. tuberculosis* complex Real Time PCR Detection Kit:

1 x 8-well strips, low profile _____ VS-MTC101LE
6 x 8-well strips, low profile _____ VS-MTC106LE
12 x 8-well strips, low profile _____ VS-MTC112LE
96-well plate, low profile _____ VS-MTC113LE
2 x 4-well strips, Rotor-Gene® _____ VS-MTC101E
18 x 4-well strips, Rotor-Gene® _____ VS-MTC172E

1 x 8-well strips, high profile _____ VS-MTC101LE
6 x 8-well strips, high profile _____ VS-MTC106HE
12 x 8-well strips, high profile _____ VS-MTC112HE
96-well plate, high profile _____ VS-MTC113HE
9 x 4-well strips, Rotor-Gene® _____ VS-MTC136E

VIASURE *M. tuberculosis* complex + non-tuberculous mycobacteria Real Time PCR Detection Kit:

6 x 8-well strips, low profile _____ VS-MTD106L
12 x 8-well strips, low profile _____ VS-MTD112L
96-well plate, low profile _____ VS-MTD113L
9 x 4-well strips, Rotor-Gene® _____ VS-MTD136

6 x 8-well strips, high profile _____ VS-MTD106H
12 x 8-well strips, high profile _____ VS-MTD112H12 x 96-
96-well plate, high profile _____ VS-MTD113H
18 x 4-well strips, Rotor-Gene® _____ VS-MTD172



CerTest Biotec, S.L.

Pol. Industrial Río Gállego II · Calle J, Nº1
50840, San Mateo de Gállego, Zaragoza (Spain)
Tel. (+34) 976 520 354 · Fax (+34) 976 106 268
certest@certest.es | viasure@certest.es
www.certest.es

For more information and use procedure,
read the instructions for use included in this product.



VIASURE/MTD-MTC-1021EN