

GeNei™ Amplification Reagents Set (for *Mycobacterium tuberculosis*)

Tuberculosis continues to be the leading cause of morbidity and mortality by an infectious disease worldwide. Effective treatment of TB requires the rapid detection of *Mycobacterium tuberculosis*.

This set is based on the principle of single tube nested PCR targeting the IS6110 sequence that is present in multiple copies in the genome of the *Mycobacterium tuberculosis* complex. Studies have shown that highest sensitivity is obtained by using IS6110 nested PCR when compared to PCR targeting other regions.

The diagnosis of TB is made by microscopy and culture. Direct Microscopy lacks sensitivity and specificity. Culture is more sensitive and is still the yardstick for diagnosis, but the time required and frequent negative results in paucibacillary specimens are the limitations. PCR is widely used for the detection of *Mycobacterium tuberculosis* in clinical specimens, because the tests are rapid, sensitive, and specific.

Highlights:

- Spin column based DNA extraction for effective removal of PCR inhibitors from the sample.
- Based on the principles of nested PCR for increased specificity and sensitivity.
- Carryover contamination prevention by dUTP-UDG system.
- Results obtained in 4 hours.
- Uses **GeNei™** HotStart Taq DNA Polymerase for increased specificity.
- Convenient aliquots of reagents to reduce the chances of contamination.
- Internal control DNA provided for the identification of processed specimens containing substances that could inhibit PCR.

Ordering Information:

Product	Size	Cat #
GeNei™ Amplification Reagents Set for <i>Mycobacterium tuberculosis</i> (for 25 tests)	1 Pack	105935
GeNei™ Amplification Reagents Set for <i>Mycobacterium tuberculosis</i> (for 50 tests)	1 Pack	105936

Materials Provided:

Reagents for DNA Extraction

- Tris Buffer (50X)
- Proteinase K
- Lysis Buffer I
- Lysis Buffer II
- Wash Buffer I (concentrate)
- Wash Buffer II (concentrate)
- Elution Buffer
- Spin Columns
- Collection Tubes

Reagents for Amplification

- I Amplification Premix
- II Amplification Premix
- **GeNei™** HotStart Taq DNA Polymerase
- Uracil DNA Glycosylase (UDG)
- Positive Control DNA
- DNA Molecular Weight Marker
- Internal Control DNA
- Gel Loading Buffer

Note: For Research use only. Not for diagnostic applications.