

# PaxView® TB/NTM MPCR-ULFA Kit



**Simultaneous detection of *Mycobacterium tuberculosis* and non-tuberculous mycobacteria**

**PaxView® TB/NTM MPCR-ULFA Kit** is an *in vitro* diagnostic kit designed for the simultaneous detection of *Mycobacterium tuberculosis* (TB) and non-tuberculous mycobacteria (NTM) in sputum specimens through MPCR-ULFA (Multiplex PCR and Universal Lateral Flow Assay).



**Multiplex MDx**

**User  
Convenience**

**Cost  
Effectiveness**

**U.S. Patent  
Registered**

## ■ Features and Advantages

- Target gene: IS6110 and mtp40 for TB, and rpoB for NTM
- High sensitivity and specificity
- All kinds of PCR thermocyclers are usable for the assay
- User-friendly and convenient method
- Prevention of PCR carry-over contamination with the use of UDG
- ULFA results in 10 minutes

PaxView® TB/NTM MPCR-ULFA Kit utilizes PaxGenBio's proprietary technology. PCR primers amplifying target genes include the nucleotide sequence complementary to the universal probe immobilized on NC membrane. DNA-DNA hybridization between the probe and its complementary sequence of one end of PCR products with lateral flow assay enables detection of target genes.



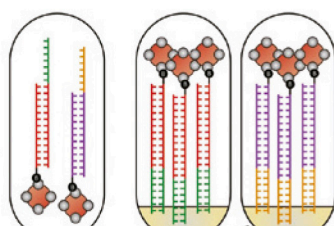
## Proprietary technology MPCR-ULFA

### ■ Multiplex PCR – ULFA (Universal Lateral Flow Assay)

- Convergence of multiplex molecular diagnostics and rapid diagnostic test technology
- Multiplex PCR amplification and DNA-DNA hybridization with universal lateral flow assay for multiple target detection.
- South Korea, U.S. patent registration

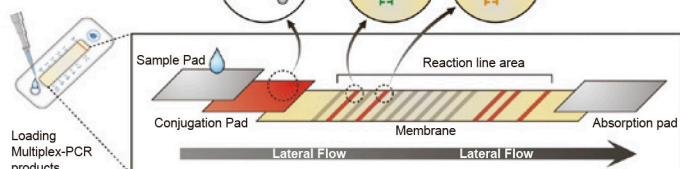
Forward primers include the nucleotide sequence complementary to the DNA probes immobilized on the NC membrane. Reverse primers are biotinylated.

Gold-Streptavidin conjugate binds to biotinylated PCR products, amplified genomic target region.



DNA-DNA Hybridization of the universal region of target-amplified PCR product with the universal probe on NC membrane.

The reaction line turns red by nanogold particles.



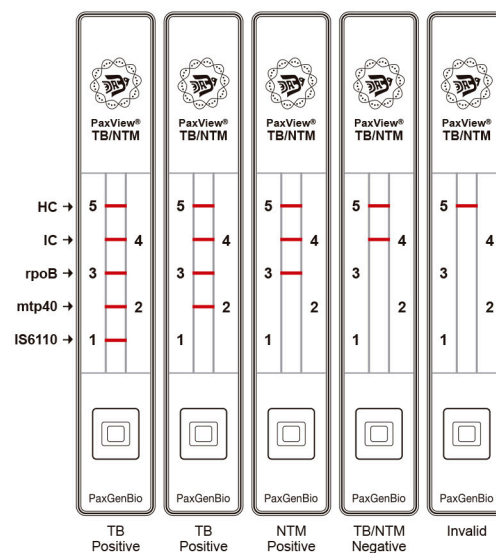
## Procedure

DNA Extraction

DNA Amplification

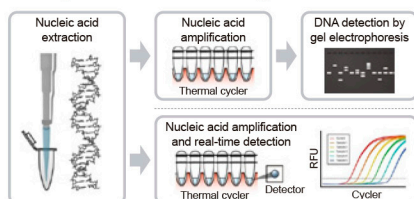
ULFA Detection

## Interpretation



## Smart Molecular Diagnostics Technology MPCR-ULFA

### ■ Major Molecular Diagnostics Technology



#### Conventional PCR

Advantage: Affordable price  
Disadvantage: a lot of labor/time

#### Real-time PCR

Advantage: Easy to use  
Disadvantages: Difficult to do multiplex over 5-plexes. Expensive reagents

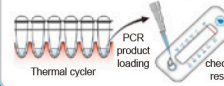
It is required to develop low-cost molecular diagnostic products with maintaining user convenience.

### MPCR-ULFA

(Universal Lateral Flow Assay)

Novel molecular diagnostics technology with low cost and great convenience

Target nucleic acid amplification and detection with lateral flow assay



Convenient on-site confirmation of PCR results  
Use on inexpensive universal kit (membrane)

Patent No.: 10-1727111 (UPAH Tech.)  
Patent No.: 10-1795773 (CAO Tech.)

### ■ Rapid Multiplex Molecular Diagnostics System

#### MPCR (Multiplex PCR)

- Simultaneous detection and identification of multiple pathogens

- High productivity and price competitiveness

#### ULFA (Universal Lateral Flow Assay)

- Rapid detection
- Results interpreted visually within 10 minutes

- Increased user convenience

## Order information

Model	PaxView® TB/NTM MPCR-ULFA Kit
Package	48 tests/Kit
Cat. No.	V0401F
Storage	MPCR: -25 ~ -15°C ULFA: 15 ~ 30°C
Expiration date	12 months

PaxGenBio Co., Ltd.

Rm 803, 361, Simin-daero, Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Republic of Korea  
T. +82-31-244-5036 F. +82-31-244-5037 E. mkt@paxgenbio.com W. www.paxgenbio.com

