

# MGI's ATOPlex *Mycobacterium* Tuberculosis Targeted Sequencing Package

## Easy operation for library preparation

- Based on ATOPlex multiplex PCR library preparation platform, 2-step amplification in one tube is needed to achieve target area amplification and library construction.

## Comprehensive software analysis

- Referring to "Catalogue of mutations in *Mycobacterium tuberculosis* complex and their association with drug resistance" released by WHO for annotation, covering the 13000+ first-and second-group drug resistance associated mutation (DRM)s and a total of 40000+ mutations; Total size of amplified region reached 25.9 Kb.
- Covering DRMs associated with 15 first- and second-line anti-tuberculosis drugs included in the catalog, relating to 42 genes or gene fragments.
- *Mycobacterium tuberculosis* complex (MTBC) identification, spoligotype typing; identification of 174 types of mycobacteria.
- Evolutionary traceability analysis.

## Rapid full process

- The whole process from nucleic acid to report can be completed in as fast as 19h on DNBSEQ-G99 platform and 27h on DNBSEQ-E25 platform.

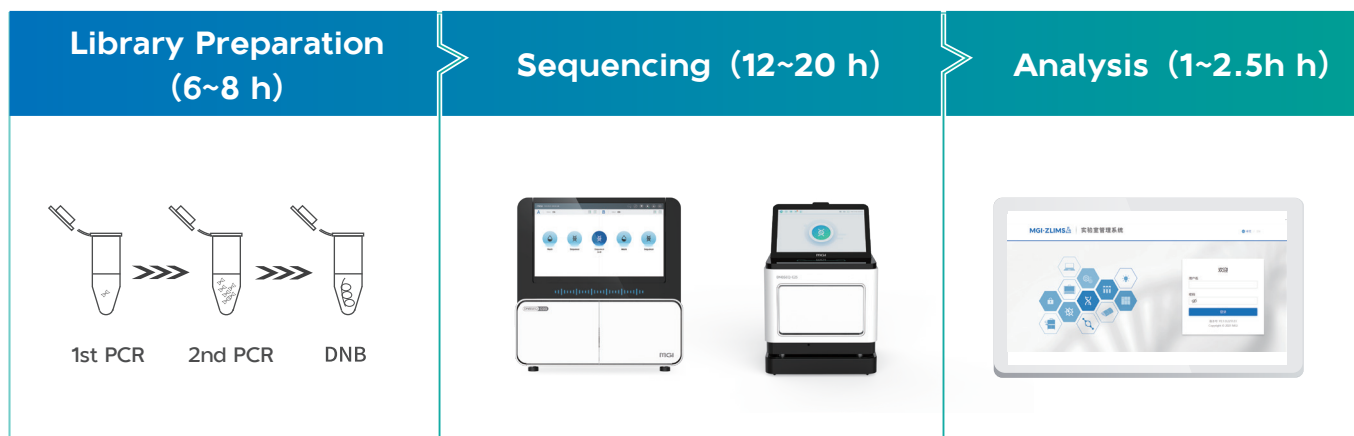
## Suitable for culture-free sample

- The high sensitivity supports directly detection of nucleic acid extracted from sputum, lavage fluid samples.

## Specification

Intended Use	MTBC and Mycobacterial identification, drug resistance associated mutations detection, drug resistance prediction to 15 anti-tuberculosis drugs. Evolutionary traceability analysis
Sample Type	DNA extracted from sputum, lavage fluid, cultured bacteria
Recommended DNA Input	DNA extracted from cultured bacteria: 1-10 ng DNA extracted from sputum, lavage fluid samples: 1-10 ng
TAT	DNBSEQ-G99: 24 samples ~19 h; DNBSEQ-E25: 8 samples ~27 h
Recommended Read Length	PE150+10+10
Recommended Data	3M Reads/Sample

ATOPlex *Mycobacterium Tuberculosis* Targeted Sequencing Package, covering the whole process from sample to report, provides powerful tools for MTBC and Mycobacterial identification, drug resistance associated mutations detection, drug resistance prediction and evolutionary traceability analysis.



## Ordering Information

Type	Name	Specification	Item Number
Instrument	DNBSEQ-G99ARS	/	900-000609-00
	DNBSEQ-G99RS	/	900-000607-00
	DNBSEQ-E25RS	/	900-000537-00
	DNBSEQ-E25ARS	/	900-000538-00
Reagents	ATOPlex MTB Library Preparation Set	96 RXN	940-001601-00
	ATOPlex MTB Library Preparation Set	576 RXN	940-001599-00
	DNBSEQ OneStep DNB Make Reagent Kit V4.0 (Dual Barcode)	4 RXN	940-001654-00
	DNBSEQ-G99RS High-throughput Sequencing Set	G99 FCL PE150	940-000410-00
Software	DNBSEQ-E25RS High-throughput Sequencing Set	FCL PE150	940-000567-00
	MTB-Explorer Software	/	970-000385-00
	MTB-Explorer Software Analysis Package (16 reports)	/	970-000397-00
Server	Platform of microorganisms Fast Identification	/	900-000393-00
	Platform of microorganisms Fast Identification and assembly evolution	/	900-000399-00

