

# GenoType<sup>®</sup> MTBDR

**Molecular Genetic Test System for the Detection of the *Mycobacterium tuberculosis* Complex and its Resistance to Rifampicin and/or Isoniazid from Culture Samples**



- simple
- safe
- fast
- easy to combine
- can be automated



CE -labelling

Quality management  
certified to  
ISO 9001/13485



## Renaissance of tuberculosis

Whereas in Germany and Western Europe the incidence of tuberculosis [TB] is decreasing, it is at the same time increasing at an alarming rate in other parts of the world such as Eastern Europe or Africa. About one third of the world's population is infected with TB and approximately 2 million people per year die as a result of a TB infection. In consequence of raising HIV infection rates the incidence of mycobacterial infections is dramatically increasing in Africa.

## Development of resistance

Apart from the global increase of TB also an increasing development of resistant and multi-resistant strains can be observed. A TB pathogen is considered to be multi-resistant if it is at least insensitive to Rifampicin and Isoniazid, the two most important tuberculostatics. Although the estimated percentage of resistant TB pathogens is relatively low in Germany, a slight increase of multi-resistant mycobacteria has been observed during the last few years. In wide parts of Eastern Europe, however, particularly high resistance rates can be found. Due to the geographic vicinity this certainly is an alarming development for neighbouring countries, since the spread of these multi-resistant strains might have a severe impact on the TB situation in the coming years. Therefore it becomes more and more important to not only identify a TB infection but also to determine the detected TB pathogen's resistance, thus ensuring a rapid and adequate therapy.

## GenoType<sup>®</sup> MTBDR

The **GenoType<sup>®</sup> MTBDR** offers an essential time lead compared to cultural phenotyping. On the basis of a positive primary culture the **GenoType<sup>®</sup> MTBDR** allows a safe and fast detection of the *M. tuberculosis* complex and its resistance to Rifampicin and/or Isoniazid in a single procedure.

## Identification of the *M. tuberculosis* complex and its resistance to Rifampicin and/or Isoniazid using the GenoType® MTBDR

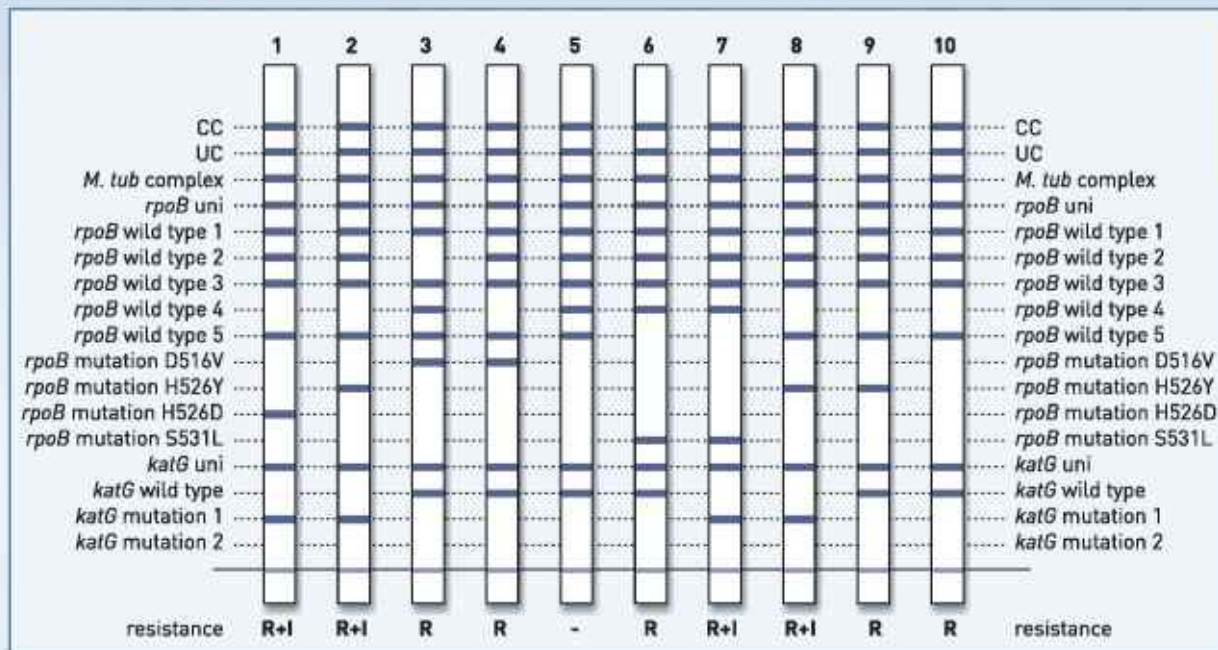


Fig. 1: Reaction zones of the GenoType® MTBDR

### Performance characteristics of the GenoType® MTBDR:

In addition to the assays for identification and differentiation of the *M. tuberculosis* complex and the most common MOTT from direct and culture material, the GenoType® MTBDR provides an optimum supplement to the mycobacteria product series of Hain Lifescience. The GenoType® MTBDR now offers the simultaneous identification of:

- the *M. tuberculosis* complex
- the resistance to Rifampicin by the detection of the most common mutations in the *rpoB* gene
- the resistance to Isoniazid by the detection of the most common mutations in the *katG* gene

from cultured samples.

### Your cost-effective entry into molecular genetic diagnostics

By simply combining GenoType® MTBDR with the other tests included in the mycobacteria product series by Hain Lifescience as well as any other test system of the GenoType® series and thanks to minimized technical requirements even small laboratories benefit from efficient and modern diagnostic. All DNA•STRIP® technology-based assays can easily be incorporated into your routine diagnostics, both in a manual and automated manner. For technical information, please see the brochure „DNA•STRIP® technology“.

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