GenoType® MTBC

Molecular Genetic Test System for the Differentiation of the *Mycobacterium tuberculosis* Complex from Culture Samples

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

CE-labelling

Quality management certified to ISO 9001

Mycobacterium tuberculosis complex

Tuberculosis (TB) infections by members of the *Mycobacterium tuberculosis* complex, due to the highly infectious nature of the pathogen, require extensive therapeutic and hygienic measures. The *M. tuberculosis* complex includes the species *M. tuberculosis*, *M. africanum*, *M. bovis*, *M. microti* and *M. canettii*, which can be furthermore divided into various subspecies.

Sound diagnosis – reliable therapy

Above all, early identification of the pathogen is of crucial importance for a successful treatment as the knowledge of the respective species is essential for the selection of suitable tuberculostatics. To prevent the development of resistance, a combination therapy is preferred to a monotherapy in the treatment of tuberculosis. When using conventional diagnostic procedures, the differentiation of the mycobacterial species requires too much valuable time. In contrast, however, there is a need for isolation and rapid healing of the TB infection and also a timely containment of the risk of spreading.

GenoType® MTBC

The **GenoType® MTBC** offers an essential time lead here, as time-consuming, costly biochemical analyses are replaced. On basis of a positive solid or liquid culture the **GenoType® MTBC** allows a fast and reliable differentiation of the species of the *M. tuberculosis* complex in a single procedure.

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Differentiation of the *Mycobacterium tuberculosis* complex using GenoType® MTBC

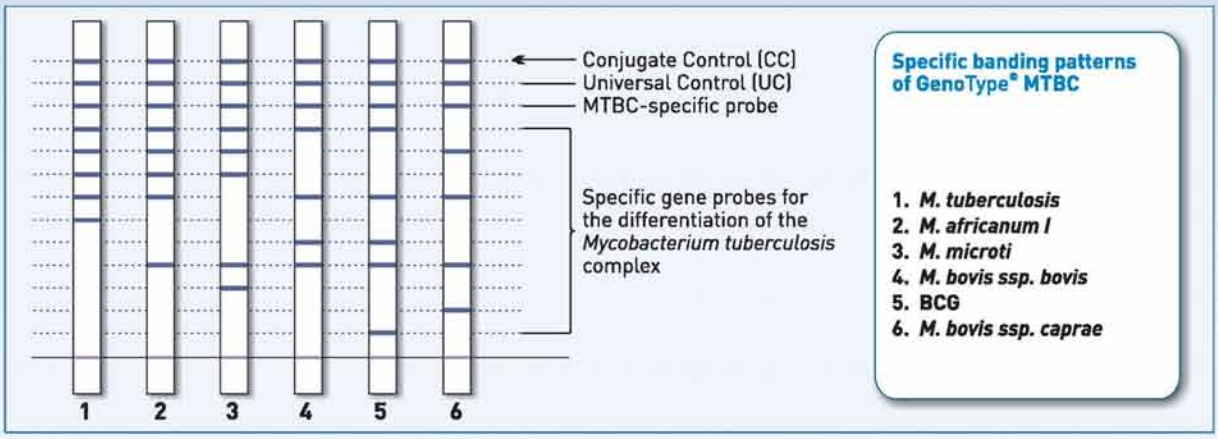

Fig. 1: Reaction zones of the **GenoType® MTBC**

Performance characteristics of the GenoType® MTBC

- The **GenoType® MTBC** guarantees reliable identification of the Bacillus Calmette-Guérin (BCG) strain. The BCG vaccine strain is a derivative of *M. bovis* attenuated in its pathogenicity and is used for immunization against TB and for immunotherapy of malignant tumours, such as bladder cancer. Detection of the BCG strain normally does not require any medication, and therefore requires an exact differentiation from the other members of the *M. tuberculosis* complex.
- *M. bovis* causes TB in domestic and wild animals, but is also of significance in human medicine. Its distinction from *M. tuberculosis* using **GenoType® MTBC** is particularly important for epidemiological reasons.
- The differentiation of the subspecies *M. bovis ssp. bovis* and *M. bovis ssp. caprae*, important from a therapeutic point of view, is unequivocally possible with **GenoType® MTBC**. These subspecies differ with regard to their sensitivity to the tuberculostatic pyrazinamide (PZA): whereas *M. bovis ssp. caprae* is PZA-sensitive, *M. bovis ssp. bovis* is PZA-resistant.
- The **GenoType® MTBC** also grants a reliable discrimination of *M. africanum I* and *M. microti* against the other species of the complex.

Your cost-effective entry into molecular genetic diagnostics

By simply combining **GenoType® MTBC** with other assays of the **GenoType®** series and thanks to minimized technical requirements even small laboratories benefit from efficient and modern diagnostics. All **DNA•STRIP® Technology**-based assays can easily be incorporated into your routine diagnostics, both in a manual and automated manner. In addition to **GenoType® MTBC** our mycobacteria product series offers a number of further tests. For technical information, please see the brochure „**DNA•STRIP® Technology**". Further literature is available direct from Hain Lifescience.

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