PRODUCT INFORMATION

Mycobacterium tuberculosis antigens coated plate
Ref: MtPRUO

1. FIELD OF USE
Mycobacterium tuberculosis Antigens Coated 96-Well Plates are designed for indirect ELISA-based quantitative determination of immunoglobulins to Mycobacterium tuberculosis antigens, in biological liquids.

2. MATERIAL SUPPLIED

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
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<tbody>
<tr>
<td>96-flat-bottom-well clear polystyrene microplate coated with 76.8 µg purified antigens from whole cell lysat of killed Mycobacterium tuberculosis H37 Ra (0.8 µg/well)</td>
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3. GENERAL INSTRUCTIONS
- Mycobacterium tuberculosis H37 Ra is an avirulent strain. However, Mycobacterium tuberculosis purified antigens used for the production of these coated microplates have been tested for bacterial viability and have been found to be 100% non-cultivable.
- Plates are activated to 200µl and supplied pre-blocked with Gemac blocking buffer.
- The 96-well plates are supplied ready to use. It is not necessary to rinse the plate prior to adding reagents.

4. CAUTIONS FOR USE
- For research use only. Not for use in diagnostic procedures.
- Respect usual handling precautions in laboratory.
- Dispose of waste observing all local, state, provincial or national regulations.

5. STORAGE AND STABILITY
- Plates are packed and sealed in a pouch with desiccant. They are shipped at ambient temperature.
- Upon receipt, store plates between +2 and +8°C in unopened pouches.
- See expiry date on packaging label.

6. BACKGROUND
Tuberculosis (TB) incidence and mortality are declining worldwide; however, poor detection of drug-resistant disease threatens to reverse current progress toward global TB control (Seifert et al., 2015). Moreover, approximately one third of the world’s population has latent infection with Mycobacterium tuberculosis (Dye, 1999). Persons with latent TB infection (LTBI) are infected with Mycobacterium tuberculosis but are not clinically ill and have no symptoms or evidence of active TB. Nonetheless, the
risk of latent TB reactivation is a perpetual concern (Mehta et al., 2015). Indeed, LTBI represents a considerable reservoir of future active disease and contagion (Baumann et al., 2015). Latent TB reactivation Risk factors include (Sylva Chaves et al., 2015):

- Use of immunosuppressive treatment
- Acquired immunodeficiency disorders such as HIV infection, malnutrition, tobacco smoke, indoor air pollution, alcoholism, silicosis, insulin dependent diabetes, renal failure, malignancy, spleen removal
- Inherited immunodeficiency disorders.

Furthermore, TB is considered an anthropozoonosis in companion animals which are however potential sources of infection for humans and other animals (Vitirito Martinho et al., 2013). In addition, the transmission of Mycobacterium tuberculosis from human to cattle was also demonstrated (Ocepek et al., 2005; Romero et al., 2011).

Finally, animal models of tuberculosis infection provide useful information about the immune response to the infection, about the capacity of new vaccines to inhibit the course of the infection and about the capacity of new drugs to sterilize the infection (Orme and Gonzalez-Juarrero, 2007).

The quantitative determination of immunoglobulins directed against Mycobacterium tuberculosis antigens in biological liquids is therefore an interesting tool.

7. BIBLIOGRAPHIC REFERENCES


