BOVIGAM TB Kit

OIE registered BOVIGAM™ kit is a widely used diagnostic kit for fast and highly reproducible diagnosis of bovine tuberculosis (bTB) in cattle, sheep and goats.

Benefits
- Faster results—farm operations are back into business sooner than with skin testing
- Helps to minimize negative economic impact on the farm
- Very high analytical sensitivity
- Combinations of the BOVIGAM kit and stimulation antigens can help optimize every local bTB program
- Objective and highly reproducible
- Established technology
- Only one vet visit required (for blood sampling) compared to two for skin testing

The BOVIGAM kit
The Applied Biosystems™ BOVIGAM™ kit is a blood-based assay of cell-mediated immunity. Animals infected with Mycobacterium bovis (M. bovis) can be identified by measurement of the cytokine interferon gamma (IFN-γ). The BOVIGAM test is widely used as a stand-alone test or as an ancillary test to the tuberculin skin test and is approved by the OIE as a solution for all bTB testing situations*. The granted claims include use of the kit as primary, stand-alone test and for the purpose of reestablishing freedom after outbreak.

Numerous studies underscore its effective use with the skin test in tuberculosis eradication programs. The test is used in many countries for the detection of M. bovis–infected cattle, sheep, goats and buffalo (Syncerus caffer).

*B Resolution No. 34, Register of Diagnostic Kits Validated and Certified by the OIE (Registration Number: 20150110)

Bovine tuberculosis
bTB is a major infectious disease among cattle, other farm animals and certain wildlife populations. It results from infection with M. bovis and can be transmitted either by respiration or by ingestion.

bTB is a chronic disease and it usually takes many months for clinical signs to manifest. Therefore, early infections are often asymptomatic, whereas in the later stages, symptoms include progressive emaciation, weakness, inappetence and enlargement of lymph nodes.

bTB is a significant zoonosis that can spread to humans through aerosols and by drinking unpasteurized milk or dairy products from infected cows.
Test procedure

Stage 1—Whole blood culture
The blood samples require overnight incubation with an antigen (tuberculin purified protein derivatives, PPDs) to stimulate the lymphocytes to produce IFN-γ. Lymphocytes from uninfected cattle do not produce IFN-γ to tuberculin PPD antigens, consequently IFN-γ detection correlates with infection.

Step 1—Blood collected in heparin is mixed with specific antigens. After incubation at 37°C overnight, the plasma supernatant from each blood aliquot is harvested for IFN-γ stimulation.

Stage 2—Bovine IFN-γ enzyme immunoassay (EIA)
IFN-γ in the plasma supernatants of each blood aliquot is estimated using a sandwich EIA.

Step 1—Diluted plasma samples react with antibodies to bovine IFN-γ bound to a solid support. Unbound material is removed by washing after a suitable incubation time.

Step 2—Conjugate reacts with IFN-γ bound to the antibody coated to a solid support. Unreacted conjugate is removed by washing after a suitable incubation time.

Step 3—Enzyme substrate is added. The rate of conversion of substrate is proportional to the amount of bound IFN-γ. The reaction is terminated after a suitable time and the amount of color development is determined spectrophotometrically.

Ordering information

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
<th>Cat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOVIGAM TB Kit</td>
<td>10-plate kit (150 samples)</td>
<td>63300 (USA)/63320 (ROW)</td>
</tr>
<tr>
<td>BOVIGAM TB Kit</td>
<td>30-plate kit (450 samples)</td>
<td>63306 (USA)/63326 (ROW)</td>
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<tr>
<td>Mycobacterium bovis Gamma Interferon</td>
<td>10-plate kit (150 samples); incl. 2xPPD and 1xPWM</td>
<td>7610910 (D)</td>
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</tbody>
</table>

Related products

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</thead>
<tbody>
<tr>
<td>BOVIGAM 2G TB Kit</td>
<td>10-plate kit (300 samples)</td>
<td>63330</td>
</tr>
<tr>
<td>VetMAX M. tuberculosis Complex Real-Time PCR Kit</td>
<td>100 reactions</td>
<td>MTBC</td>
</tr>
</tbody>
</table>

Stimulation antigens

**BOVIGAM Tuberculin PPD produced by Prionics Lelystad B.V.**

- Bovine Tuberculin PPD 3000
  
  5 mL; 30,000 I.U./mL
  
  7600060

- Avian Tuberculin PPD 2500
  
  5 mL; 25,000 I.U./mL
  
  7600065

**BOVIGAM Tuberculin PPD (CSL) produced by AsureQuality**

- Tuberculin PPD (Bovine)
  
  20 mL; 0.3 mg/mL
  
  63303 (USA)/63313 (ROW)

- Tuberculin PPD (Avian)
  
  20 mL; 0.3 mg/mL
  
  63304 (USA)/63314 (ROW)

Peptide cocktails

- Peptide Cocktail Prionics PC-EC
  
  3 mL (lyophilized); 120 samples
  
  7600100

- Peptide Cocktail Prionics PC-HP
  
  3 mL (lyophilized); 120 samples
  
  7600105

Stimulation control

- Pokeweed Mitogen PWM
  
  1 vial; 3.2 mg
  
  5108777