



# Stimulation antigens

Optimize your local bovine tuberculosis (bTB) program by choosing an appropriate combination of BOVIGAM stimulants best suited for your unique needs

## Optimized for Applied Biosystems™ BOVIGAM™ assays

Applied Biosystems™ BOVIGAM™ Tuberculin purified protein derivatives (PPDs)

- Original stimulant for sensitive and specific Applied Biosystems™ BOVIGAM™ stimulation
- Produced by AsureQuality, former product

Applied Biosystems™ BOVIGAM™ Bovine Tuberculin PPD 3000/Avian Tuberculin PPD 2500

- Produced by Prionics Lelystad B.V.
- For higher sensitivity and specificity with Applied Biosystems BOVIGAM and Applied Biosystems™ BOVIGAM™ 2G assays
- Improved product due to matched potencies of bovine and avian tuberculin PPD

## Peptide Cocktail Prionics™ PC-EC

- For high specificity with Applied Biosystems™ BOVIGAM™ products, ideal for monitoring purposes
- First commercially available peptide cocktail based on the AHVLA ESAT-6 and CFP-10 antigens\*
- Used in national bTB programs (UK and France)

## Peptide Cocktail Prionics™ PC-HP

- For combined high sensitivity and high specificity with BOVIGAM products
- Unique antigen cocktail with peptides derived from ESAT-6, CFP-10, Rv-3615c and 3 additional mycobacterial genes
- Best balance between high sensitivity and specificity that helps fulfill all requirements of eradication programs

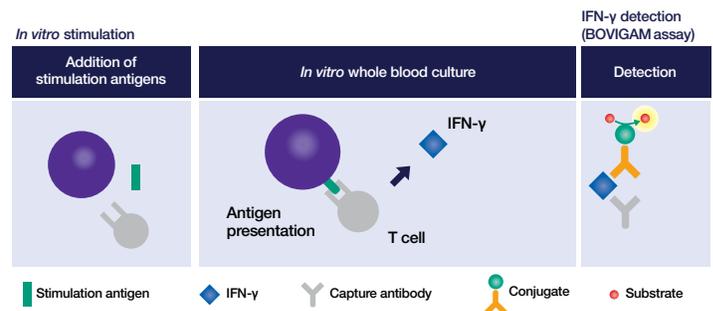
## Pokeweed mitogen

- Nonspecific stimulation antigen
- Control for the viability of blood cells in the sample
- Checks for blood sample quality and proper test functionality

## BOVIGAM 2G and BOVIGAM assays

BOVIGAM 2G and BOVIGAM tests are blood-based assays of cell-mediated immunity. Blood samples are incubated with stimulation antigens to stimulate the lymphocytes to produce the cytokine interferon gamma (IFN-γ). Lymphocytes from infected cattle produce IFN-γ when exposed to tuberculin antigens, while uninfected animals do not, hence IFN-γ detection correlates with infection. *Mycobacterium bovis* (*M. bovis*) is therefore identified by measurement of IFN-γ.

Our unique panel of antigens offer flexible *in vitro* stimulation of BOVIGAM assays. The use of stimulation antigens allows adjustment of the application of the test to specific TB situations.



**Optimize your local bTB program**

The diagnostic sensitivity and specificity of combining peptide stimulants with BOVIGAM 2G are shown in the table below. The diagnostic sensitivity was highest when blood samples were stimulated with tuberculin PPDs produced by Prionics Lelystad (89%). The diagnostic specificity was highest upon stimulation with Peptide Cocktail Prionics™ PC-EC (97%). Prionics™ PC-HP provides a good balance between high sensitivity (85%) and high specificity (94%).

**Bovine tuberculosis**

bTB is a major infectious disease among cattle, other farm animals, and certain wildlife populations. It is caused by infection with *M. bovis* and can be transmitted either through respiration or by ingestion. Diagnosis of bTB is complex, and a diagnostic gold standard that can detect all infected animals is not currently available. Conventional diagnostic tools (e.g., detection of antibodies or antigen) can only be used in late stages of the disease. Consequently, the most widely used bTB diagnostics are based on the cell-mediated immune response that is determined by either skin or blood testing.

**Combining different stimulation antigens with BOVIGAM assays allows for adjustment to specific TB situations.\*\*  
Combinations of BOVIGAM kits and stimulation antigens can help optimize every local bTB program.**

Stimulant	Sensitivity	Specificity	Addressed need
Tuberculin PPD	89%	84%	Eradication of TB in an outbreak situation
Prionics PC-HP	85%	94%	Compromise—fulfills all requirements of eradication programs
Prionics PC-EC	80%	97%	Monitoring—helps save cows

**Ordering information**

Product	Quantity	Cat. No.
<b>BOVIGAM Tuberculin PPDs produced by Prionics Lelystad B.V.</b>		
Bovine Tuberculin PPD 3000	5 mL; 30,000 I.U./mL	7600060
Avian Tuberculin PPD 2500	5 mL; 25,000 I.U./mL	7600065
<b>BOVIGAM Tuberculin PPDs (CSL) produced by AsureQuality</b>		
Tuberculin PPD (Bovine)	20 mL; 0.3 mg/mL	63313
Tuberculin PPD (Avian)	20 mL; 0.3 mg/mL	63314
<b>Peptide cocktails</b>		
Peptide Cocktail Prionics PC-EC	3 mL (lyophilized); 120 samples	7600100
Peptide Cocktail Prionics PC-HP	3 mL (lyophilized); 120 samples	7600105
<b>Stimulation control</b>		
Pokeweed Mitogen (PWM)	1 vial; 3.2 mg	5108777
<b>Related products</b>		
BOVIGAM TB Kit	10-plate kit (150 samples)	63320
BOVIGAM TB Kit	30-plate kit (450 samples)	63326
BOVIGAM 2G TB Kit	10-plate kit (300 samples)	63330

Find out more at [thermofisher.com/animalhealth](http://thermofisher.com/animalhealth)

\*Vordermeier HM et al. (2001) Use of synthetic peptides derived from the antigens ESAT-6 and CFP-10 for differential diagnosis of bovine tuberculosis in cattle. *Clin Diagn Lab Immunol* 8(3):571–8.

\*\*Local regulations apply.