



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™ Bovine Tuberculin PPD 3000/Avian Tuberculin PPD 2500

- For high sensitivity and specificity with Applied Biosystems™ BOVIGAM™ 2G TB kits and BOVIGAM assays
- Improved product due to matched potencies of bovine and avian tuberculin PPD

Applied Biosystems™ BOVIGAM™ PC-EC Stimulation Antigen

- 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)

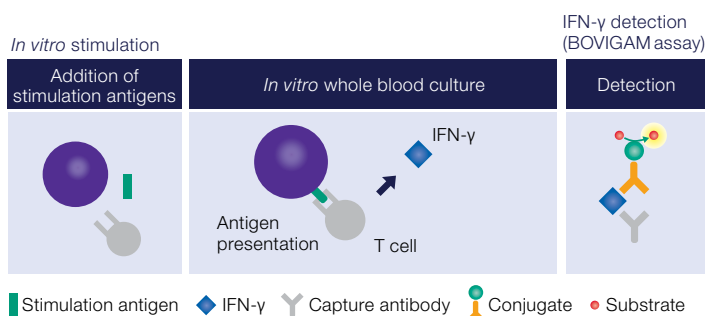
Applied Biosystems™ BOVIGAM™ PC-HP Stimulation Antigen

- For combined high sensitivity and high specificity with BOVIGAM products
- Unique antigen cocktail with peptides derived from ESAT-6, CFP-10, Rv-3615c, and three additional mycobacterial genes

- Best balance between high sensitivity and specificity that helps fulfill all requirements of eradication programs

Applied Biosystems™ BOVIGAM™ 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 kits are shown in the table below. The diagnostic sensitivity was highest when blood samples were stimulated with tuberculin PPDs (89%). The diagnostic specificity was highest upon stimulation with BOVIGAM PC-EC Stimulating Antigen (97%). BOVIGAM PC-HP Stimulating Antigen 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.

Combinations of BOVIGAM kits and stimulation antigens can help optimize every local bTB program.**

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

Ordering information

Product	Quantity	Cat. No.
Tuberculin PPDs		
BOVIGAM Tuberculin PPD Stimulating Antigen, bovine	5 mL; 30,000 I.U./mL	7600060
BOVIGAM Tuberculin PPD Stimulating Antigen, avian	5 mL; 25,000 I.U./mL	7600065
Peptide cocktails		
BOVIGAM PC-EC Stimulation Antigen (lyophilized)	3 mL; 120 samples	7600100
BOVIGAM PC-HP Stimulation Antigen (lyophilized)	3 mL; 120 samples	7600105
Stimulation control		
BOVIGAM Pokeweed Mitogen	1 vial; 3.2 mg	5108777
Related products		
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

* 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.

Find out more at thermofisher.com/animalhealth