Serodiagnostic Test for Johne’s Disease

Status

Research Status: Further research required to optimize antigen combinations
Development Status: Field trials and validation required to optimize a final product
Patent Status: Issued US 9879057
License Status: Available

Keywords

Johne’s disease, MAP secreted antigens, early detection, serum antibodies

Opportunity

Issued US patent available for licensing which protects eight unique antigens secreted by Mycobacterium avian subsp. paratuberculosis during Johne’s disease infection.

Advantages and Applications

- Test detects bovine serum antibody response to several novel Johne’s specific proteins that are secreted by the bacteria during infection
- Test uses multiple antigens which improves sensitivity, specificity, and positive predictive values
- Test results help to differentiate:
  ✓ Infected – Johne’s positive
  ✓ Uninfected but seropositive for Johne’s
  ✓ Uninfected but seropositive for cross reacting mycobacteria
- Should enable earlier detection of infected cattle
- More sensitive than existing commercial tests
- May be useful for easy screening new cattle entering a herd
- May be useful for monitoring herds as Johne’s Free
- Pretreatment of serum samples is not required
- Ideal for developing a high throughput multiplexed test in reference labs

References


Contact

David Hobson DVM, DVSc, PEng | 519.824.4120 x58859 | dhobson@uoguelph.ca