



***Brucella canis* resources and information for veterinarians**

With the current interest in this testing at AHL please see below a brief review of testing and some resources for more in-depth information.

SCREENING TEST

Test offered at AHL is the *Brucella canis* immunofluorescence (IFA) test (code bcat). The RSAT test for *Brucella canis* is currently not available.

Sample required: 0.5 mL serum. Collect in red-top vacutainer tube or equivalent. Ship in insulated container with freezer packs. TAT 1-7 days.

CONFIRMATORY TESTS

Further testing to confirm IFA-positive results can be done by culture, PCR or agar gel immunodiffusion (AGID).

Culture

- Can be performed from blood (**specific blood culture vials are required – whole blood or EDTA blood will be rejected**), vaginal swabs, preputial swabs or urine.
- Blood cultures are best performed in a series of three, collected at least 24 hours apart, preferably while the animal is febrile, to determine if the animal is bacteriemic.
- Positive results are confirmatory. Negative results do not rule out brucellosis so it should not be used as a screening test.

Sample handling is critical to reduce false negatives. Please contact AHL at ahinfo@uoguelph.ca or 519-824-4120 ext 54530 for further information before sending samples.

PCR (send out)

- Can be performed from blood (EDTA), vaginal swabs, preputial swabs or urine
- Positive results are confirmatory. Negative results do not rule out brucellosis so it should not be used as a screening test.

Please note – both PCR and culture on blood may only be positive during the initial acute febrile stage of the disease.

AGID (send out)

Another confirmatory test that can be done on IFA-positive serum samples.

Because the organism can be sequestered in the body, dogs can exhibit a range of serological reactions over time, potentially alternating positive and negative results. In cases of chronic infection, serology is not a useful tool to monitor response to therapy.

Resources:

Dr Scott Weese - Worms and Germs Blog

<https://www.wormsandgermsblog.com/2019/03/articles/animals/dogs/brucella-canis-in-imported-dogs-ontario/>

<https://www.wormsandgermsblog.com/2019/03/articles/animals/dogs/brucella-canis-ontario/>

CDC Emerging and Infectious Disease article

https://wwwnc.cdc.gov/eid/article/24/8/17-1171_article

[Brucella canis factsheet \(Center for Food Security and Public Health\)](#)

[Best Practices for Brucella canis Prevention and Control in Dog](#)

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