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[www.cvm.ncsu.edu/docs/ticklab.html](http://www.cvm.ncsu.edu/docs/ticklab.html)

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**A New More Sensitive Test for the Detection of *Bartonella* Infection:**

Although PCR and agar plate culture are useful tests to document infection with *Bartonella henselae* in cats, these same techniques are not sensitive enough to detect active infection with a *Bartonella* species in dog blood samples. After several years of research development, the VBDDL now offers a unique combinational approach for the detection of *Bartonella* species in dog blood samples that combines pre-enrichment culture utilizing a patented *Bartonella* Alpha Proteobacteria growth medium (BAPGM) followed by a highly sensitive PCR assay. As with any blood culture procedure, it is critical that samples be collected following careful aseptic preparation of the skin. For reasons that remain undetermined, *B. henselae* and *B. vinsonii* subsp. *berkhoffii* infection can be documented in dogs that lack a detectable antibody response (i.e. serological testing can be negative in up to 40% of dogs that are infected). For the \$100 cost of this test, two PCR assays (original sample and sample obtained following 7 days of culture in BAPGM), a liquid culture and an agar plate subculture are performed on each sample.

The following references describe the validation and use of this combined approach:

Duncan AW, Maggi RG, **Breitschwerdt EB**. A combined approach for the enhanced detection and isolation of *Bartonella* species in dog blood samples: Pre-enrichment culture followed by PCR and subculture onto agar plates. J Microbiol Meth, 2007; 69: 273-281.

Diniz PPVP, Maggi RG, Schwartz DS, Cadenas MB, Bradley JM, Hegarty BC, Breitschwerdt EB. Canine bartonellosis: Serological and molecular prevalence in Brazil and evidence of co-infection with *Bartonella henselae* and *Bartonella vinsonii* subsp. *berkhoffii*. Vet Res. 2007;38:697-710.

Breitschwerdt EB, Maggi RG, Sigmon B, Nicholson WL. Isolation of *Bartonella quintana* from a woman and a cat following putative bite transmission. J Clin Microbiol 2007;45:270-72.