

Antech's Clinical Steps Guide to Positive Accuplex® Results for Veterinarians

Heartworm • Lyme • *Ehrlichia* • *Anaplasma*

Dirofilaria immitis Ag (Heartworm) infection:

Positive: Results are consistent with the presence of at least 1 female heartworm filarid. All positive results should be confirmed through additional testing as recommended by the American Heartworm Society (AHS). The second confirmatory test could be the presence of microfilariae (MF) (Knotts) or confirming a positive HW Ag using a test from a different manufacturer. The AHS treatment protocol guidelines should be followed. Heartworm Ag testing should be performed 9 months after the last melarsamine injection. A year round heartworm prevention program is recommended.

Lyme disease exposure/infection:

Positive: Antibodies directed against *Borrelia burgdorferi* C6 antigen are detected in this sample. C6, part of the conserved invariable region 6 (IR6) within the Borrelial surface protein VlsE, is highly immunogenic in the canine host. Antibodies can be detectable as early as 4-6 weeks after tick-borne exposure and may persist for months to years. Lyme vaccine induced antibodies will not cross react. The presence of antibodies indicates previous exposure or infection. These results must be interpreted in light of clinical signs. Please refer to the Accuplex Lyme Algorithm, which incorporates the **2018 ACVIM Lyme consensus update**, for further diagnostic and monitoring recommendations in the case of a positive result.

Download the [Accuplex Lyme Algorithm](#).

Ehrlichia canis exposure:

Positive: Patient is seropositive for exposure to *Ehrlichia canis*. Infections can be acute, subclinical or chronic. If clinical signs are present, consider performing a CBC, chemistry profile, urinalysis, and a Canine Tick Borne PCR Panel (U.S. test code T960 • Canada test code CT960) to evaluate for coinfections. Given infection can be subclinical, a CBC should still be considered in the absence of clinical signs of illness. Year round tick control strategies should be implemented or improved in the face of a positive result. Note: In the southwestern U.S., a strain of *E. canis* has recently been discovered that cannot be identified by Accuplex. If clinical signs are present and Accuplex is negative, an *Ehrlichia* spp. evaluation by IFA or PCR should be considered.

Anaplasma phagocytophilum exposure:

Positive: There is currently no consensus as to whether seropositive but clinically normal dogs require treatment. If there are nonspecific clinical signs (fever, lethargy, and/or anorexia) or concerns about subclinical disease, consider performing a CBC (to evaluate for morulae and thrombocytopenia), chemistry profile, and urinalysis. If thrombocytopenic, consider Antech's Canine Tick Borne PCR Panel (U.S. test code T960 • Canada test code CT960) to confirm *Anaplasma* infection (and evaluate for coinfections) versus treatment with doxycycline for 30 days. The majority of dogs will show clinical improvement within 1-3 days. If response to doxycycline is suboptimal, further diagnostics are recommended. Year round tick control strategies should be implemented or improved in the face of a positive result.