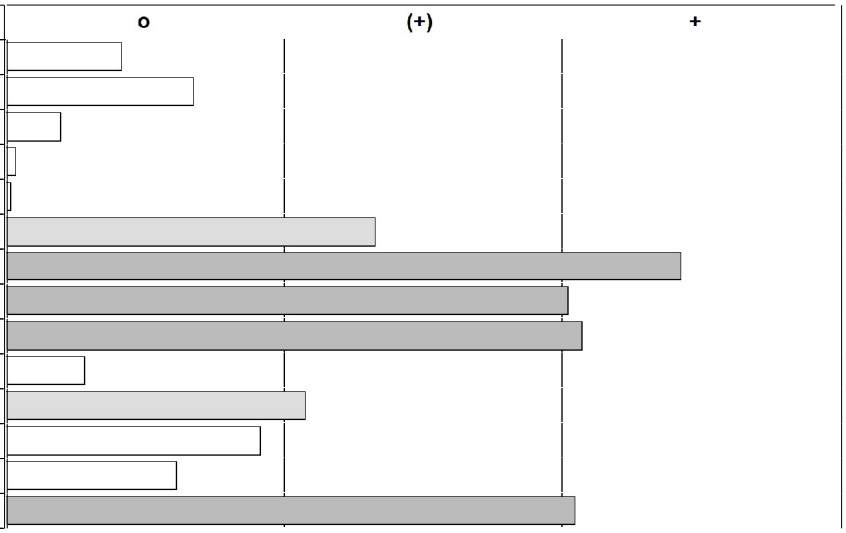
Pet Preferred Diagnostics

1101 Cambridge Square, Suite "C"
Alpharetta, GA, 30009
Tel: 470-275-6851; Fax: 470-233-6887
contact@petpreferreddx.com

Date of incubation: 7/24/2024 **Patient name:** Gucci XXXXXXX
Lab number: **CXXXXX** **Sent from:** **XXXXXX Animal Clinic**

Antigen	Intensity	Class
VlsE Borrelia afzelii	6	o
VlsE Borrelia burgdorferi	10	o
VlsE Borrelia garinii	3	o
Lipid Borrelia afzelii	0	o
Lipid Borrelia burgdorferi	0	o
p83	19	(+)
Flagellin	124	+
BmpA	31	+
OspC	42	+
BB_A34 p58	4	o
BB_K53 p21	17	(+)
BB_Q03 p20	14	o
BB_N38 p19	9	o
BB_P38 p18	36	+



Test	Result
Borrelia IgG	Positive

Intensity	Class	Explanation
0 - 15	o	Negative
16 - 25	(+)	Borderline
26 - 255	+	Positive

Signature: _____

EXPLANATION of THE RESULTS for
THE LYME DISEASE ANTIBODY DETECTION TEST

(the Monitoring Profile)

The Anti-Borrelia Dog (IgG) test identifies **fourteen antibodies** to *fourteen antigens* of *B. burgdorferi* at the early and later stages of infection in a single sample with 100% sensitivity.

The assay allows secure and sensitive differentiation between Borrelia-specific and non-specific reactions and helps to monitor treatment.

Specific antigens that can be detected in this test:

VlsE:
a specific surface lipoprotein of *B. burgdorferi*, is known as a variable major protein-like sequence expressed (VlsE). VlsE is one of the most important antigens in Lyme disease diagnostics. Highly purified recombinant VlsE antigens from *B. afzelii* (Ba), *B. burgdorferi sensu stricto* (Bb) and *B. garinii* (Bg). Infected dogs show an **early** strong IgG response to VlsE.

Lipid Ba and **Lipid Bb:**
Lipids from *B. afzelii* (Ba) or *B. burgdorferi sensu stricto* (Bb) extracted from the membrane fraction. Antibodies against lipids from Borrelia frequently occur during the **late** phase of infection.

p83:
Purified recombinant protein p83 from *B. burgdorferi sensu stricto*. Antibodies against p83 frequently occur in the **late** phase of infection.

Flagellin (p41):
Flagellin or Flagellar filament 41kD core protein is a protein found in the hollow cylinder forming the filament in *B. burgdorferi* flagellum. The flagella play a role in the Borrelia invasion of host tissue. p41 is associated with delayed IgG response and is typically detected in **late** Lyme borreliosis. The p41 IgG response persists with a **prolonged illness**.

BmpA (p39) protein:
Basic membrane protein A (BmpA) is the immunogenic cell membrane component presented on the outer surface of *B. burgdorferi*. BmpA is an important antigen for a *B. burgdorferi* infection diagnostic. IgG antibodies to p39 are frequently observed in Lyme borreliosis cases, mainly in late infections. However, these antibodies can also be detected in the **early** stages of Lyme disease (BmpA is expressed during the invasion of the spirochete and in the development of the arthritis of Lyme disease in dogs).

OspC (p25):
is another outer surface lipoprotein (Osp) of *B. burgdorferi*. OspC is immunogenic during early infection and can produce protective antibody responses to *B. burgdorferi* infection. Antibodies to OspC can be detected **after three weeks** of infection. The level of antibodies to OspC decreases after seven to eleven weeks and is undetectable between four to five months after infection.

p58, p21, p20, p19, p18:
Recombinant highly specific antigens from *B. burgdorferi sensu stricto* purified by affinity chromatography.

BB_A34 (p58): Antibodies directed against p58 are among the first to appear in the blood after infection, making it useful for **early** detection.

BB_K53 (p21) protein is a member of the OspE-F gene family. Specific IgG antibodies against p21 protein can be detected at either **early** or **late** stages of Lyme disease.

BB_Q03 (p20):
the antigen is generally part of a panel of antigens used to detect antibodies against *B. burgdorferi.*

BB_N38 (p19):
plays a role in the immune response to infections, including Lyme disease. While p19 is not a specific antigen of *B. burgdorferi* (the bacteria causing Lyme disease), it can be involved in the **inflammatory responses** that occur during infection.

BB_P38 (p18) is the variable region of the *B. burgdorferi* flagellin (an 18-kDa fragment). The IgG antibodies against the 18-kDa proteins are frequently detected in **late** Lyme disease infections.