

# 2403266072 - LYME

## AUTOIMMUNE DEMO

FINAL REPORT

Accession ID: 2403266072

Name: 2403266072 - LYME  
AUTOIMMUNE DEMO  
Date of Birth: 01-01-1111  
Gender: Male  
Age: 01  
Height:  
Weight:  
Fasting: UNKNOWN

Telephone: 000-000-0000  
Street Address:  
Email:

### Provider Information

Practice Name: DEMO CLIENT, MD Telephone: 000-000-0000  
Provider Name: DEMO CLIENT, MD Address: 3521 Leonard Ct, Santa Clara, CA 95054  
Phlebotomist: 0

### Report Information

Current Result Previous Result In Control Moderate Risk

### Specimen Information

Sample Type	Collection Time	Received Time	Report	Final Report Date
Serum	2024-03-21 01:00 (PDT)	2024-03-22 15:42 (PDT)	Lyme Autoimmunity - P2	2024-04-09 09:15 (PDT)

SAMPLE



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TNP Test not performed

R&L Refer to risks and limitations at the end of report

Notes Refer to Lab notes at the end of the table

## INTRODUCTION

Vibrant Wellness is pleased to present Lyme Autoimmunity panel to help you make healthy lifestyle, dietary and treatment choices and aid in the understanding of Lyme disease - Autoimmune axis in consultation with your healthcare provider. The Vibrant Lyme Autoimmunity panel tests for IgG antibodies for Lyme Autoimmunity antigens.

### Methodology:

The Vibrant Lyme Autoimmunity ImmunoChip test is a semiquantitative assay that detects IgG antibodies in human serum for the Lyme Autoimmunity antibodies with multiplexed chemiluminescence immunoassay (CLIA) methodology.

### Interpretation of Report:

The Lyme Autoimmunity Summary provides concise information by representing the list of antigens with positive serology antibody titers that are outside the normal reference range. Reference ranges have been established using a cohort of 192 apparently healthy individuals. While the summary table provides a quick snapshot of the analytes tested, providers are encouraged to review the comments provided following the summary for a detailed description and significance of the analytes tested.





This is followed by a complete list of all analytes tested for all antigen markers. For antibody results, the classification of Green denotes a result that is within the normal reference range, the classification of Yellow denotes a result that is moderately elevated titer with respect to the reference range and the classification of Red denotes a result that is elevated with respect to the normal reference range. Additionally, the previous value (if available) is also indicated to help check for improvements every time the test is ordered. As with all testing, results should be interpreted considering a patient's history, physical examination, and/or results of other diagnostic testing.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for the Lyme Autoimmunity panel is performed by Vibrant America, a CLIA certified lab CLIA#:05D2078809. Vibrant Wellness provides and makes available this report and any related services pursuant to the Terms of Use Agreement (the "Terms") on its website at [www.vibrant-wellness.com](http://www.vibrant-wellness.com). By accessing, browsing, or otherwise using the report or website or any services, you acknowledge that you have read, understood, and agree to be bound by these terms. If you do not agree to these terms, you shall not access, browse, or use the report or website. The statements in this report have not been evaluated by the Food and Drug Administration and are only meant to be lifestyle choices for potential risk mitigation. Please consult your healthcare provider for medication, treatment, diet, exercise, or lifestyle management as appropriate. This product is not intended to diagnose, treat, or cure any disease or condition. Vibrant Wellness does not provide clinical consultations for Lyme disease treatments.

### Please note:

It is important that you discuss any modifications to your diet, exercise, and nutritional supplementation with your healthcare provider before making any changes.

## Lyme Autoimmunity

Panel Name	Antigens	Current	Previous	Result (IgG)	Reference
Lyme Arthritis	Fibronectin	20.5			≤10.0
	Collagen V Alpha 1	18.5			≤10.0
	Laminin Beta 2	19.3			≤10.0
Lyme Carditis	apoB100	21.5			≤10.0

### Lyme Arthritis

Lyme arthritis is a manifestation of Lyme disease where the *Borrelia burgdorferi* bacteria, transmitted by deer ticks, infects joints. It commonly affects large joints like the knee, causing inflammation, pain, and swelling. Lyme arthritis can present with intermittent episodes of joint swelling, often accompanied by systemic symptoms such as fever and fatigue. If left untreated, chronic Lyme arthritis can lead to joint damage.

#### Comments

**Fibronectin:** Fibronectin is a large glycoprotein found in the extracellular matrix, blood, and cell surface. Excessive immune responses to *Borrelia burgdorferi* antigens can cause a break in the immune tolerance resulting in the spread of the bacterial antigen epitope to tissue antigens associated with the infection like fibronectin. This phenomenon is observed in Lyme arthritis patients with DRB1\*04 or DRB1\*1501 alleles. The autoantigens are recognized by ECM-reactive T cells which are attracted to and activated in the joints leading to inflammation observed in Lyme arthritis.

**Collagen V Alpha 1:** Collagen-V is a type of collagen that is found in several tissues including the bone matrix. Excessive immune responses to *Borrelia burgdorferi* (Lyme bacteria) antigens can cause a break in the immune tolerance resulting in the spread of the bacterial antigen epitope to tissue antigens associated with the infection like collagen V. This phenomenon is observed in Lyme arthritis patients with DRB1\*04 or DRB1\*1501 alleles. The autoantigens are recognized by ECM-reactive T cells which are attracted to and activated in the joints leading to inflammation observed in Lyme arthritis.

**Laminin Beta 2:** Laminin is a large glycoprotein found in the extracellular matrix of humans. Excessive immune responses to *Borrelia burgdorferi* antigens can cause a break in the immune tolerance resulting in the spread of the bacterial antigen epitope to tissue antigens associated with the infection like laminin. This phenomenon is observed in Lyme arthritis patients with DRB1\*04 or DRB1\*1501 alleles. The autoantigens are recognized by ECM-reactive T cells which are attracted to and activated in the joints leading to inflammation observed in Lyme arthritis.

### Lyme Carditis

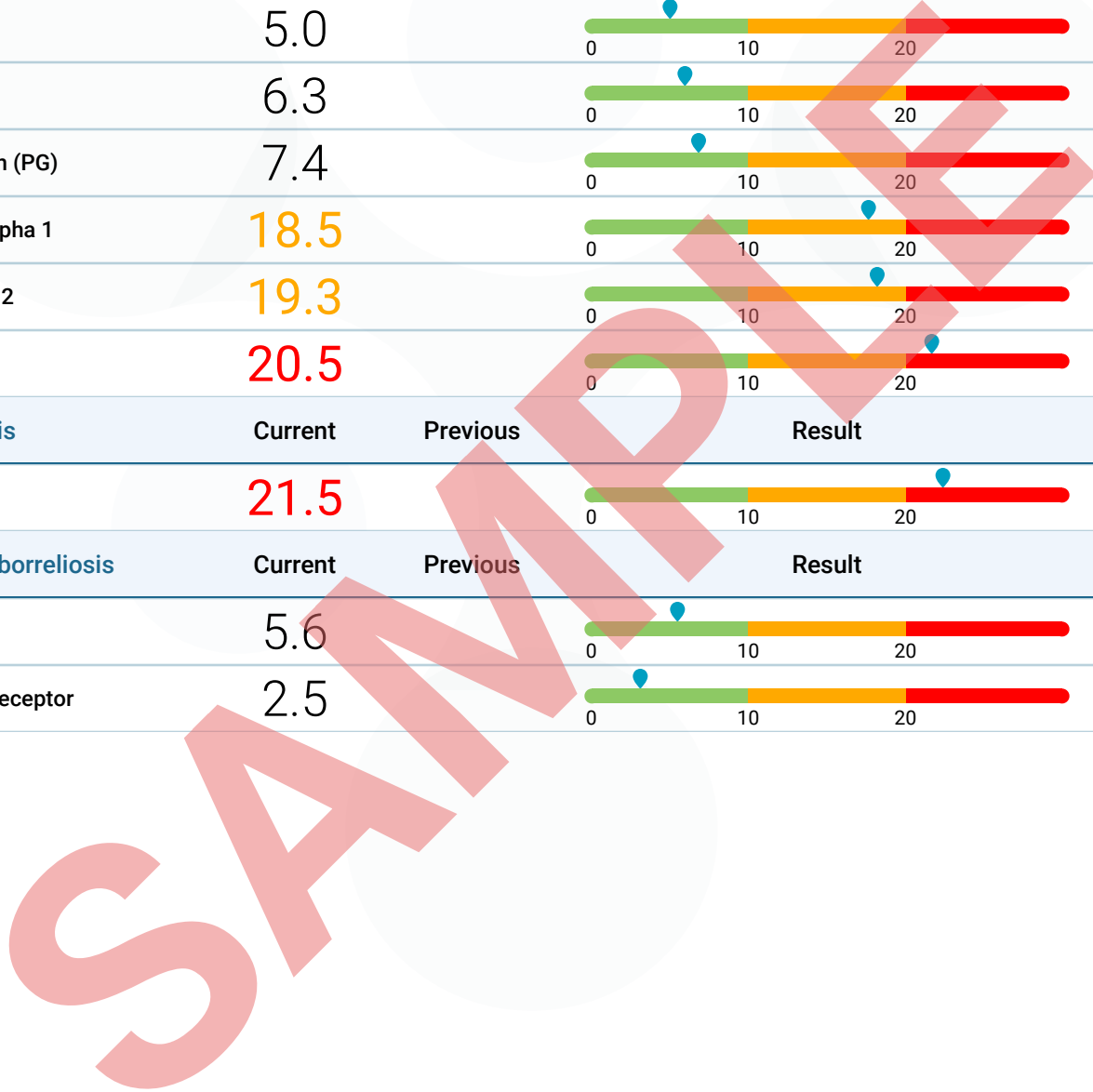
Lyme carditis is a rare complication of Lyme disease where the *Borrelia burgdorferi* bacteria infects the heart. This can lead to inflammation of the heart muscle (myocarditis), the sac surrounding the heart (pericarditis), and disruption of the heart's electrical system (heart block). Symptoms may include palpitations, chest pain, shortness of breath, fainting, and dizziness.

#### Comments

**apoB100:** ApoB100 is an apolipoprotein that has a role in the transport of cholesterol in the body. The Lyme bacteria (*B. burgdorferi*) acquires lipid molecules from the host resulting in the bacteria having a similar lipid composition as the host. Autoantibodies may be released against the host lipoproteins (like apoB100) that bind to the bacterial lipids resulting in an immune response. ApoB100 can be considered as an autoantigen of Lyme carditis as autoantibodies against this lipoprotein are observed in patients with Lyme carditis.

# Lyme Autoimmunity

Lyme Autoimmunity				
Lyme Arthritis	Current	Previous	Result	Reference
T-span7	3.0			≤10.0
ECGF	4.0			≤10.0
MMP10	5.0			≤10.0
Annexin A2	6.3			≤10.0
Peptidoglycan (PG)	7.4			≤10.0
Collagen V Alpha 1	18.5			≤10.0
Laminin Beta 2	19.3			≤10.0
Fibronectin	20.5			≤10.0
Lyme Carditis	Current	Previous	Result	Reference
apoB100	21.5			≤10.0
Lyme Neuroborreliosis	Current	Previous	Result	Reference
GM1	5.6			≤10.0
Dopamine 1 receptor	2.5			≤10.0



## Risk and Limitations

This test has been developed and its performance characteristics determined by Vibrant America LLC., a CLIA certified lab. These assays have not been cleared or approved by the U.S. Food and Drug Administration. Vibrant Wellness provides additional contextual information on these tests and provides the report in a more descriptive fashion.

Clinical history and current symptoms of the individual must be considered by the healthcare provider prior to any interventions. Test results should be used as one component of a healthcare provider's clinical assessment.

Vibrant Lyme Autoimmunity panel testing is performed at Vibrant America, a CLIA and CAP certified laboratory utilizing ISO-13485 developed technology. Vibrant America has effective procedures in place to protect against technical and operational problems. However, such problems may still occur. Examples include failure to obtain the result for a specific test due to circumstances beyond Vibrant's control. Vibrant may re-test a sample to obtain these results but upon re-testing the results may still not be obtained. As with all medical laboratory testing, there is a small chance that the laboratory could report incorrect results. A tested individual may wish to pursue further testing to verify any results.

The information in this report is intended for educational purposes only. While every attempt has been made to provide current and accurate information, neither the author nor the publisher can be held accountable for any errors or omissions. Tested individuals may find their experience is not consistent with Vibrant's selected peer reviewed scientific research findings of relative improvement for study groups. The science in this area is still developing and many personal health factors affect diet and health. Since subjects in the scientific studies referenced in this report may have had personal health and other factors different from those of tested individuals, results from these studies may not be representative of the results experienced by tested individuals. Further, some recommendations may or may not be attainable, depending on the tested individual's physical ability or other personal health factors. A limitation of this testing is that many of these scientific studies may have been performed in selected populations only.

The interpretations and recommendations are done in the context of these studies, but the results may or may not be relevant to tested individuals of different or mixed ethnicities. Vibrant Wellness makes no claims as to the diagnostic or therapeutic use of its tests or other informational materials. Vibrant Wellness reports and other information do not constitute medical advice and are not a substitute for professional medical advice. Please consult your healthcare practitioner for questions regarding test results, or before beginning any course of medication, supplementation, or dietary changes.

SAMPLE