TICK BORNE 2.0 DEMO

Name: TICK BORNE 2.0 DEMO
Date of Birth: 01-01-1111
Gender: Male
Age: 01
Height:
Weight: 188 lbs
Fasting: FASTING

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

FINAL REPORT

Accession ID: 2303100134

Provider Information

Practice Name: DEMO CLIENT, MD
Provider Name: DEMO CLIENT, MD
Phlebotomist: 0

Telephone: 000-000-0000
Address: 3521 Leonard Ct, Santa Clara, CA 95054

Report Information

Current Result | Previous Result | In Control | Moderate | Risk

Specimen Information

Sample Type	Collection Time	Received Time	Report	Final Report Date
Serum	2023-03-21 00:00 (PDT)	2023-03-23 15:19 (PDT)	Tick Borne 2.0 - P2	2023-04-03 10:11 (PDT)
EDTA	2023-03-21 00:00 (PDT)	2023-03-23 15:19 (PDT)	Tick Borne 2.0 - P2	2023-04-03 10:11 (PDT)

VibrantWellness
3521 Leonard Ct, Santa Clara, CA 95054
1-866-364-0963 | support@vibrant-america.com | www.vibrant-america.com

Tick Borne 2.0

INTRODUCTION

Vibrant Wellness is pleased to present Tickborne panel to help you make healthy lifestyle, dietary and treatment choices and aid in the diagnosis of tickorne diseases in consultation with your healthcare provider.The Vibrant Tickborne Diseases panel tests for IgG and IgM antibodies for Borreliosis/Lyme disease as well as co-infection(s) and opportunistic infections with other tick-borne illnesses along with detection of DNA of the species causing these infections.

Methodology:

The Vibrant Tickborne Immunochip test is a semiquantitative assay that detects IgG and IgM antibodies in human serum/DBS for the tickborne microorganisms with multiplexed chemiluminescence immunoassay (CLIA) methodology. The Tickborne PCR Test is a real-time PCR Assay based on probe-based qPCR and RT-qPCR designed for qualitative detection of infectious group- specific DNA in clinical samples.

Interpretation of Report:

The Tickborne Summary provides concise information on all organisms with antibody titers outside the normal reference range and/or detected results of the PCR testing for all analytes tested. Reference ranges have been established using a cohort of 2000 apparently healthy individuals. This is followed by a complete list of all analytes tested including IgG, IgM titers and PCR results for all organisms. For antibody results, the classification of Green denotes a results 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.

The PCR panel reports results as Detected or Not Detected. For each species tested Interpretation for the results is obtained by using all the antigens tested and provided below the panel results. 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 Tickborne panel is performed by Vibrant America, a CLIA certified lab CLIA#:05D2078809 and Vibrant Genomics, a CLIA certified lab CLIA#: 05D2098445. 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. 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 physician 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 physician before making any changes. The Vibrant America Clinical Support team can only provide basic and generalized interpretation of hormone biomarkers and pathways.

Tick Borne 2.0 - Summary

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Panel Name	Organism	Positive Serology IgG	IgM	PCR
Lyme disease	Borrelia burgdorferi	C6 peptide, p34 (OspB), p39 (BmpA), p41, p83-93		
	Borrelia afzelii	OspA		
	Borrelia garinii	DbpA		
	Borrelia bavariensis	VlsE1		
Other Borrelia species	Other Borrelia species	Borrelia turcica		
Human granulocytic anaplasmosis (HGA)	Anaplasma phagocytophilum	Msp2 (p44)		
Epstein Barr Virus	Epstein Barr Virus	EBNA1		
Parvovirus B19	Parvovirus B19	VLP VP2		
Herpes simplex virus 1	Herpes simplex virus 1	HSV-1		
Streptococcal A	Streptococcal A	Streptococcal A		

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Lyme disease

Borrelia burgdorferi

Borreliella burgdorferi is one of the pathogens of the Borreliella burgdorferi sensu lato complex causing Lyme disease. Lyme disease is a zoonotic, vector-borne disease transmitted by the Ixodes tick. Clinical presentation of Lyme disease is known for the characteristic bull's-eye rash (also known as erythema migrans) but can also include myocarditis, cardiomyopathy, arrythmia, arthritis, arthralgia, meningitis, neuropathies, and facial nerve palsy depending on the stage of infection.

Comment

C6 peptide - C6 peptide refers to the sixth invariant region (C6) of the variable major protein-like sequence-expressed (VlsE) lipoprotein of B. burgdorferi may be more sensitive in patients with erythema migrans.

p34 (OspB) - Outer surface protein B (OspB) is one of the major proteins in the outer membrane of this B. burgdorferi. OspB was found to be critical for B. burgdorferi adherence and survival within Ixodes ticks.

p39 (BmpA) - B. burgdorferi basic membrane protein A (BmpA) localizes to the bacterium's outer membrane. BmpA and its three paralogous proteins, BmpB, BmpC, and BmpD, all bind to laminin in the host's extracellular matrix.

p41 - B. burgdorferi p41 is a flagellar filament 41kD core protein of B. burgdorferi. Flagellin is a protein found in the hollow cylinder forming the filament in bacterial flagellum. Its structure is helical, which is important for its function. Studies comparing aflagellate borrelia to flagellated indicate that the flagella have a role in the invasion of human tissue.

p83-93 - B. burgdorferi p83-93, also known as p100, is an important immunodominant protein. Comparison of the p83molecule with sequences from protein databases showed similarities with characteristics of eukaryotic cell structures, therefore p83 is predicted to be involved in the immune escape mechanism of the pathogenic agent of Lyme disease.

Borrelia afzelii

Borrelia afzelii is a species of Borrelia, a bacterium that can infect various species of vertebrates and invertebrates. B. afzelii and B. garinii are the primary causes of Lyme disease in Europe and Asia. Coinfection by this Borrelia species with one or more pathogens can occur, carried by the vector, which appears to be in most cases the tick. In Europe the related genospecies Borrelia afzelii is associated with both EM and acrodermatitis chronica atrophicans (ACA), and several European studies have found compelling evidence for B. afzelii infection in patients with morphea.

Borrelia garinii

Borrelia garinii is a type of spirochete that can cause lyme disease. Borrelia garinii has only been found in ticks in Eurasia. B. garinii and species similar to it have been found in hard ticks such as Ixodes ricinus, Ixodes scapularis, Ixodes pacificus, and Ixodes persulcatus. These ticks feed on all sorts of mammals, birds, and reptiles. Between one to three weeks after an infected tick bite, most people end up developing a reaction that causes a flat red rash. Common clinical manifestations include a low-grade fever, fatigue, stiff neck, arthritis, and lymphadenopathy. Neurological manifestations are more common with B. garinii, while arthritis occurs mostly in cases dealing with B. burgdorferi. In a study of a coinfection of B. burgdorferi and B. garinii on Lyme Borreliosis, the researchers concluded that the coinfection resulted in a more severe form of Lyme disease.

Borrelia bavariensis

Borrelia bavariensis, found in Europe and Asia, is a spirochete belonging to the Borrelia group and utilizes rodents as reservoir hosts. Europe B. bavariensis strains were frequently associated with Neuroborreliosis. B. bavariensis strains were frequently included into the species B. garinii in epidemiological and clinical studies in Asia; therefore, their overall medical significance is at present difficult to judge. It is also possible that B. bavariensis is divided into an Asian and European subpopulation.

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Other Borrelia species

Other Borrelia species

The 'Other Borrelia species' encompass a group of spiral-shaped bacteria related to those causing Lyme disease and relapsing fever. These species, including Borrelia andersonii, Borrelia maritima, Borrelia californiensis, Borrelia bissettiae, Borrelia lusitaniae, Borrelia valaisiana, Borrelia yangtzensis, and Borrelia turcica, are lesser-known compared to Borrelia burgdorferi, the primary Lyme disease pathogen, but still pose significant health concerns globally. Typically transmitted by ticks, infections by these Borrelia species can result in a range of symptoms, including fever, headache, joint pain, and fatigue. Due to the diversity and non-specific nature of these symptoms, diagnosing infections from these pathogens can be challenging. Recent studies indicate that some of these other Borrelia species may be linked to health issues that are not yet fully recognized. Therefore, further research into these species is crucial for public health and disease prevention.

Human granulocytic anaplasmosis (HGA)

Anaplasma phagocytophilum

Anaplasma phagocytophilum causes human granulocytic anaplasmosis (HGA). These bacteria are spread to people by tick bites primarily from the blacklegged tick (Ixodes scapularis) and the western blacklegged tick (Ixodes pacificus). It also causes anaplasmosis in sheep and cattle, also known as tick-borne fever and pasture fever. During the last stage of the infection, a group of small bacteria can be observed within the neutrophils in the blood. Clinical manifestations are fever, headache, leucopenia, thrombocytopenia, and mild injury to the liver.

Comment

Msp2 (p44) - Anaplasma phagocytophilum MSP2(p44) is the bacterium's major surface protein, encoded by a paralogous gene family and has been implicated in a variety of pathobiological processes, including antigenic variation, host adaptation, adhesion, porin activity, and structural integrity.

Epstein Barr Virus

Epstein Barr Virus

The Epstein–Barr virus, also called human herpesvirus 4 (HHV-4), is one of the causes of infectious mononucleosis (glandular fever). It is a double-stranded, enveloped, linear DNA virus. Lyme disease and infectious mononucleosis are common illnesses that share similar clinical presentations and hence its useful to test together.

Parvovirus B19

Parvovirus B19

Lyme disease and Parvovirus B19 infections produce arthritis, rashes, and a systemic illness that may be thought to represent a chronic rheumatic disease . Cases of co infections have also been reported in literature. Additionally, it has been shown to be a good candidate for differential diagnosis in cases of arthopathy where Lyme disease has been suspected .

Herpes simplex virus 1

Herpes simplex virus 1

Herpes simplex virus 1 is a member of the herpesvirus family that can infect humans. It mostly produces cold sores and is ubiquitous and contagious. As a neutrophic and neuroinvasive virus, HSV-1 persists in the body in its latent form and is hiding from the immune system in the cell bodies of neurons. Seropositivity to HSV-1 antibodies have been reported with increased risk for alzheimer's disease . Disseminated Lyme Disease has been shown to be presenting with nonsexual acute genital ulcers and Lyme disease should be considered in women presenting with acute-onset genital ulcers

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Streptococcal A

Streptococcal A

Antibodies to Streptococcal A are indicative of current or recent strep infection. In PANDAS (Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections) researchers suggest that antibodies produced to the infection may lead to the PANDAS symptoms. Strep bacteria are very ancient organisms that survive in the human host by hiding from the immune system as long as possible. They hide themselves by putting molecules on their cell wall so that they look nearly identical to molecules found on the child's heart, joints, skin, and brain tissues. This hiding is called "molecular mimicry" and allows the strep bacteria to evade detection for a long time. However, the molecules on the strep bacteria are eventually recognized as foreign to the body and the child's immune system reacts to the molecules by producing antibodies. Because of the molecular mimicry by the bacteria, the immune system reacts not only to the strep molecules but also to the human host molecules that were mimicked; antibodies "attack" the mimicked molecules in the child's own tissues. These antibodies that react to both the molecules on the strep bacteria and to similar molecules found on other parts of the body are an example of "cross-reactive" antibodies. Studies at the National Institute of Mental Health (NIMH) and elsewhere have shown that some cross-reactive antibodies target the brain—causing OCD, tics, and the other neuropsychiatric symptoms of PANDAS.

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PCR

Lyme disease PCR	Current	Previous
Borrelia burgdorferi	NOT DETECTED	
Borrelia garinii	NOT DETECTED	
Borrelia spielmanii	NOT DETECTED	

TBRF PCR	Current	Previous
Borrelia hermsii	NOT DETECTED	
Borrelia lonestari	NOT DETECTED	

Borrelia miyamotoi PCR	Current	Previous
Borrelia miyamotoi	NOT DETECTED	

Other Borrelia species PCR	Current	Previous
Borrelia andersonii	NOT DETECTED	
Borrelia californiensis	NOT DETECTED	
Borrelia lusitaniae	NOT DETECTED	
Borrelia yangtzensis	NOT DETECTED	

Babesiosis PCR	Current	Previous
Babesia microti	NOT DETECTED	

Bartonella PCR	Current	Previous
Bartonella henselae	NOT DETECTED	
Bartonella vinsonii	NOT DETECTED	

HGA PCR	Current	Previous
Anaplasma phagocytophilum	NOT DETECTED	

Rickettsial disease PCR	Current	Previous
Rickettsia rickettsii	NOT DETECTED	

Lyme disease PCR	Current	Previous
Borrelia afzelii	NOT DETECTED	
Borrelia bavariensis	NOT DETECTED	
Borrelia mayonii	NOT DETECTED	

TBRF PCR	Current	Previous
Borrelia turicatae	NOT DETECTED	

Other Borrelia species PCR	Current	Previous
Borrelia maritima	NOT DETECTED	
Borrelia bissettiae	NOT DETECTED	
Borrelia valaisiana	NOT DETECTED	
Borrelia turcica	NOT DETECTED	

Babesiosis PCR	Current	Previous
Babesia duncani	NOT DETECTED	

Bartonella PCR	Current	Previous
Bartonella elizabethae	NOT DETECTED	
Bartonella quintana	NOT DETECTED	

HME PCR	Current	Previous
Ehrlichia chaffeensis	NOT DETECTED	

Rickettsial disease PCR	Current	Previous
Rickettsia typhi	NOT DETECTED	

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PCR

Powassan Virus PCR	Current	Previous
Powassan virus	NOT DETECTED	

Tickborne Encephalitis Virus PCR	Current	Previous
Tickborne encephalitis virus	NOT DETECTED	

West Nile Virus PCR	Current	Previous
West Nile Virus	NOT DETECTED	

Chlamydophila pneumoniae PCR	Current	Previous
Chlamydophila pneumoniae	NOT DETECTED	

Coxsackie Virus PCR	Current	Previous
Coxsackie Virus	NOT DETECTED	

Mycoplasma pneumoniae PCR	Current	Previous
Mycoplasma pneumoniae	NOT DETECTED	

Parvovirus B19 PCR	Current	Previous
Parvovirus B19	NOT DETECTED	

Toxoplasma gondii PCR	Current	Previous
Toxoplasma gondii	NOT DETECTED	

Lyme disease

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Borrelia burgdorferi	Current IgG	Current IgM	Previous IgG	Previous IgM
Borrelia burgdorferi VlsE1	8.2	2.6		
Borrelia burgdorferi C6 peptide	13.4	4.1		
Borrelia burgdorferi p18 (DbpB)	3.0	3.3		
Borrelia burgdorferi p23-25 (OspC)	8.5	3.0		
Borrelia burgdorferi p28	5.2	3.6		
Borrelia burgdorferi p30	9.1	3.7		
Borrelia burgdorferi p31 (OspA)	2.9	2.5		
Borrelia burgdorferi p34 (OspB)	13.2	2.9		
Borrelia burgdorferi p39 (BmpA)	17.6	3.3		
Borrelia burgdorferi p41	11.6	3.9		
Borrelia burgdorferi p45	4.8	3.7		
Borrelia burgdorferi p58	4.2	3.0		
Borrelia burgdorferi p66	4.9	2.8		
Borrelia burgdorferi p83-93	11.9	1.5		

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Lyme disease

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

	Current		Previous	
Borrelia burgdorferi	IgG	IgM	IgG	IgM
Borrelia burgdorferi crude extract B31	2.9	3.1		
Borrelia burgdorferi 297 strain WCS	3.4	2.9		
Borrelia mayonii	IgG	IgM	IgG	IgM
Borrelia mayonii	3.2	1.7		
Borrelia afzelii	IgG	IgM	IgG	IgM
Borrelia afzelii BmpA	5.2	2.1		
Borrelia afzelii DbpA	5.0	2.8		
Borrelia afzelii OspA	13.5	2.4		
Borrelia afzelii OspC	9.8	2.1		
Borrelia afzelii p100	4.4	2.7		
Borrelia garinii	IgG	IgM	IgG	IgM
Borrelia garinii DbpA	14.1	1.7		
Borrelia garinii OspC	2.4	1.4		
Borrelia bavariensis	IgG	IgM	IgG	IgM
Borrelia bavariensis DbpA	4.8	2.0		
Borrelia bavariensis p58	3.8	2.8		
Borrelia bavariensis VlsE1	13.8	2.4		
Borrelia spielmanii	IgG	IgM	IgG	IgM
Borrelia spielmanii DbpA	3.0	1.5		
Borrelia spielmanii OspC	7.5	1.5		

Tick Borne Relapsing Fever (TBRF)

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

	Current		Previous	
Borrelia hermsii	IgG	IgM	IgG	IgM
Borrelia hermsii	3.1	1.8		

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Tick Borne Relapsing Fever (TBRF)

Reference Range: In Control: ≤10 | Moderate: 10.1-20 | Risk: >20

Borrelia turicatae	Current IgG	Current IgM	Previous IgG	Previous IgM
Borrelia turicatae	6.5	3.0		

Borrelia miyamotoi disease

Reference Range: In Control: ≤10 | Moderate: 10.1-20 | Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Borrelia miyamotoi	9.4	3.4		

Other Borrelia species

Reference Range: In Control: ≤10 | Moderate: 10.1-20 | Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Borrelia andersonii	7.5	3.1		
Borrelia maritima	4.3	1.8		
Borrelia californiensis	4.4	2.5		
Borrelia bissettiae	3.8	2.1		
Borrelia lusitaniae	5.5	2.4		
Borrelia valaisiana	4.2	2.0		
Borrelia yangtzensis	6.5	2.5		
Borrelia turcica	14.2	1.7		

Babesiosis

Reference Range: In Control: ≤10 | Moderate: 10.1-20 | Risk: >20

Babesia microti	Current IgG	Current IgM	Previous IgG	Previous IgM
Babesia microti IRA	4.4	1.9		
Babesia microti p32	8.9	2.9		
Babesia microti p41	3.9	1.7		
Babesia microti WCS	3.2	1.5		

Babesia duncani	Current IgG	Current IgM	Previous IgG	Previous IgM
Babesia duncani	3.6	1.6		

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Bartonella infection

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Bartonella henselae	Current IgG	Current IgM	Previous IgG	Previous IgM
Bartonella henselae 17 kDa	4.3	2.2		
Bartonella henselae 26 kDa	5.0	1.8		
Bartonella henselae SucB	5.9	1.8		

Bartonella elizabethae	Current IgG	Current IgM	Previous IgG	Previous IgM
Bartonella elizabethae	6.8	2.1		

Bartonella vinsonii	Current IgG	Current IgM	Previous IgG	Previous IgM
Bartonella vinsonii	7.3	1.9		

Bartonella quintana	Current IgG	Current IgM	Previous IgG	Previous IgM
Bartonella quintana	6.6	2.3		

Human granulocytic anaplasmosis (HGA)

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Anaplasma phagocytophilum	Current IgG	Current IgM	Previous IgG	Previous IgM
Anaplasma phagocytophilum Msp5	4.0	2.5		
Anaplasma phagocytophilum Msp2 (p44)	19.8	3.0		
Anaplasma phagocytophilum OmpA	3.6	2.1		

Human Monocytic Ehrlichiosis (HME)

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Ehrlichia chaffeensis	Current IgG	Current IgM	Previous IgG	Previous IgM
Ehrlichia chaffeensis	7.1	2.6		

Rickettsial disease

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Rickettsia typhi OmpB	6.3	2.4		
Rickettsia typhi Surface antigen	4.5	1.7		

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Powassan Virus

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Powassan Virus	2.9	1.5		

Tickborne Encephalitis Virus

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Tickborne Encephalitis Virus	7.0	3.0		

West Nile Virus

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
West Nile Virus	2.5	1.5		

Chlamydophila pneumoniae

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Chlamydophila pneumoniae	8.9	3.5		

Coxsackie Virus

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Coxsackie Virus	9.3	1.9		

Mycoplasma pneumoniae

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Mycoplasma pneumoniae	5.8	3.1		

Cytomegalovirus

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Cytomegalovirus EIA Antigen	5.4	1.5		
Cytomegalovirus GlyB	3.9	6.4		
Cytomegalovirus p150	2.1	5.5		
Cytomegalovirus p28	4.0	5.5		
Cytomegalovirus p52	3.1	6.3		

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Cytomegalovirus

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Cytomegalovirus p65	2.2	5.2		
Cytomegalovirus p38	1.3	1.7		

Epstein Barr Virus

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Epstein Barr Virus EA Antigen	5.7	6.4		
Epstein Barr Virus EBNA1	18.7	3.5		
Epstein Barr Virus VCA gp125	3.8	5.8		
Epstein Barr Virus p18	0.8	2.1		
Epstein Barr Virus p23	6.0	8.7		

Parvovirus B19

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Parvovirus B19 VLP VP2	12.1	2.5		
Parvovirus B19 VLP VP1/Vp2 Co Capsid	5.4	2.1		

Toxoplasma gondii

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Toxoplasma gondii Crude Extract	5.8	7.6		
Toxoplasma gondii MIC3	4.8	2.1		
Toxoplasma gondii p24	7.2	3.3		
Toxoplasma gondii p29	6.5	2.8		
Toxoplasma gondii p30	4.8	2.1		

Herpes simplex virus 1

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
HSV-1	13.9	7.6		

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Herpes simplex virus 2

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
HSV-2	4.8	4.3		

Human herpesvirus 6

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
HHV-6	4.8	5.4		

Human herpesvirus 7

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
HHV-7	6.1	2.2		

Streptococcal A

Reference Range: In Control: ≤10 Moderate: 10.1-20 Risk: >20

Test Name	Current IgG	Current IgM	Previous IgG	Previous IgM
Streptococcal A	11.1	3.5		

Risk and Limitations

This test has been developed and its performance characteristics determined by Vibrant America LLC., a CLIA certified lab and Vibrant Genomics, 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 physician's clinical assessment.

Vibrant Tickborne panel testing is performed at Vibrant America, a CLIA and CAP certified laboratory utilizing ISO-13485 developed technology and Vibrant Genomics, a CLIA certified laboratory. Vibrant America and Vibrant Genomics have 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.

It should be realized that there are possible sources of error like any lab testing which include sample misidentification, trace contamination of PCR reactions, technical errors and rare genetic variants that may interfere with analysis.

Some individuals may feel anxious about getting their test health results. If the potential user feels very anxious, such user should speak to his or her doctor or other health care professional prior to collection of a sample for testing. Users should consult with their doctor or other health care professional if they have any questions or concerns about the results of their test or their current state of health. Users of the test are also encouraged to discuss their test results with a genetic counselor, board-certified clinical molecular geneticist, or equivalent health care professional.

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.