

Cytokine Panel

Final Report Date:	04-21-2021 16:40	Specimen Collected:	04-20-2021 16:40
Accession ID:	2104210004	Specimen Received:	04-21-2021 10:40

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
DEMO	ORGANIC, Sr.	MALE	1987-11-26	2104210004	04-20-2021 16:40

PATIENT

Name: ORGANIC, Sr. DEMO
Date of Birth: 1987-11-26
Gender: Male
Age: 33

Fasting: FASTING

PROVIDER

Practice Name: Vibrant IT4 Practice
Provider Name: Demo Client, DDD (999994)
Street Address: TEST STREET
City: TEST CITY
State: KY
Zip #: 42437
Telephone #:
Fax #: 000-000-0000
Phlebotomist: 728

Vibrant Wellness is pleased to present to you, 'Cytokine Panel' to help you make healthy lifestyle, dietary and treatment choices in consultation with your healthcare provider. It is intended to be used as a tool to encourage a general state of health and well-being.

Cytokines are an important category of cell signaling molecules and are primarily involved in inflammatory pathways or as growth factors. Though they are not very specific by themselves, they can help with detailed understanding of the inflammatory process in the context of a disease response like food sensitivity or an infection. The panel is designed to give a complete picture of an individual's levels of these proteins in blood.

Interpretation of Report: The report consists of a single table with the complete list of the markers along with their respective levels in a tabular form to enable a full overview along with the corresponding reference ranges. The level of the marker has a green, yellow or red highlight around the cell indicating – Mild, Moderate or High levels of potential risk in comparison to our reference population. Additionally, the previous value is also indicated to help check for improvements every time the test is ordered. All contents provided in the report are purely for informational purposes only and should not be considered medical advice. Any changes based on the information should be made in consultation with the clinical provider.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for the Cytokine 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. 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 accept 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.

Note - Pediatric ranges have not been established for this test. To schedule an appointment with Vibrant Clinical Dietitians please call: Toll-Free 866-364-0963.

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Cytokines

Test Name	Current	Previous (04/20/2021)	Reference Range
IL-1 alpha (pg/ml)	1.8	1.8	≤4.9
IL-1 beta (pg/ml)	1.9	1.9	≤6.4
IL-2 (pg/ml)	1.2	1.2	≤1.9
IL-4 (pg/ml)	1.9	1.9	≤2.0
IL-5 (pg/ml)	1.3	1.3	≤2.0
IL-6 (pg/ml)	1.6	1.6	≤1.9
IL-10 (pg/ml)	1.7	1.7	≤2.6
IL12p70 (pg/ml)	1.1	1.1	≤3.4
IL-13 (pg/ml)	1.8	1.8	≤1.9
IL-15 (pg/ml)	1.7	1.7	≤1.9
IL-17 (pg/ml)	1.8	1.8	≤1.4
IL-23 (pg/ml)	164.0	2.0	≤149.9
IFN gamma (pg/ml)	1.2	1.2	≤3.9
TNF alpha (pg/ml)	20.3	20.3	≤6.9
TNF beta (ng/ml)	1.3	1.3	≤21.9

Comments

IL-17

IL-17 is a pro inflammatory cytokine produced T helper cell type 17 on stimulation with IL 23. Interestingly inhibition of IL 17 has been shown to prevent Arthritis from Borrelia showing that it could be potentially be involved in pathways leading to joint damage in Lyme disease. While supplements to lower individual cytokines are still under reasearch, it is been shown in certain studies that antioxidant supplements lower inflammatory cytokines. Some studies on mung bean seed coat and EGCG from green tea leaf have also been shown to reduce inflammation. A plant based diet could potentially also reduce inflammation as has been showed in several studies however the mechanism by which this happens is unclear. Increasing Omega 3 fatty acids and reducing Omega 6 fatty acids have also been shown to reduce inflammation. Considering supplementing with Polyphenols such as Retinoids, lycopene, flavonoids, resveratol in consultaion with your physician. Regular exercise of about 30 minutes per day and meditation has also been shown to reduce stress and inflammatory markers.

IL-23

IL-23 is a pro inflammatory cytokine. It has been shown to be key to promote and proliferate the T helper cell type 17 immune response which are important to fight extracellular pathogens. It has also been associated with autoimmune conditions in individuals. In the context of post lyme disease symptoms IL-23 has been shown to be elevated in a subset of patients. Antibody responses to endothelial cell growth factor were also found in some of the patients with post lyme disease symptoms. While supplements to lower individual cytokines are still under reasearch, it is been shown in certain studies that antioxidant supplements lower inflammatory cytokines. Some studies on mung bean seed coat and EGCG from green tea leaf have also been shown to reduce inflammation. A plant based diet could potentially also reduce inflammation as has been showed in several studies however the mechanism by which this happens is unclear. Increasing Omega 3 fatty acids and reducing Omega 6 fatty acids have also been shown to reduce inflammation. Considering supplementing with Polyphenols such as Retinoids, lycopene, flavonoids, resveratol in consultaion with your physician. Regular exercise of about 30 minutes per day and meditation has also been shown to reduce stress and inflammatory markers.

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TNF alpha

TNF alpha is pro inflammatory cytokine. It has been implicated in a variety of human diseases. It is a popular drug target due to its ability to strongly modulate an inflammatory response. Some studies have linked high expression of TNF alpha with Inflammatory bowel and irritable bowel diseases as well as depression. While supplements to lower individual cytokines are still under research, it is been shown in certain studies that antioxidant supplements lower inflammatory cytokines. Some studies on mung bean seed coat and EGCG from green tea leaf have also been shown to reduce inflammation. A plant based diet could potentially also reduce inflammation as has been showed in several studies however the mechanism by which this happens is unclear. Increasing Omega 3 fatty acids and reducing Omega 6 fatty acids have also been shown to reduce inflammation. Considering supplementing with Polyphenols such as Retinoids, lycopene, flavonoids, resveratrol in consultation with your physician. Regular exercise of about 30 minutes per day and meditation has also been shown to reduce stress and inflammatory markers.

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 Cytokine panel does not demonstrate absolute positive and negative predictive values for any condition. Its clinical utility has not been fully established. 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.

Cytokine Panel testing is performed at Vibrant America, a CLIA certified laboratory and utilizes 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 toxin due to circumstances beyond Vibrant's control. Vibrant may re-test a sample in order 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.

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 the giving of medical advice and are not a substitute for a professional healthcare practitioner. Please consult your provider for questions regarding test results, or before beginning any course of medication, supplementation or dietary/lifestyle changes. Users should not disregard, or delay in obtaining, medical advice for any medical condition they may have, and should seek the assistance of their health care professionals for any such conditions.