

DAIRY ZOOMER DEMO

Name: DAIRY ZOOMER DEMO
Date of Birth: 01-01-1111
Gender: Male
Age: 01
Height:
Weight:
Fasting: UNKNOWN

Telephone: 000-000-0000
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FINAL REPORT

Accession ID: 2308020585

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	2023-08-02 00:00 (PDT)	2023-08-03 12:54 (PDT)	Dairy Zoomer - P2	2023-08-14 11:59 (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 to you 'Dairy Zoomer', to help you make healthy lifestyle and dietary 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. The Vibrant Dairy Zoomer is an array of dairy antigens which offers very specific antibody-to-antigen recognition. The panel is designed to assess an individual's IgG and IgA sensitivity to these antigens at the peptide and protein level. Additionally, dairy allergy testing is also performed by checking for IgE antibodies against cow's milk.

Methodology:

The Vibrant Dairy Zoomer test is a semiquantitative assay that detects IgG, IgA, and IgE antibodies in human serum/DBS for dairy antigens with multiplexed chemiluminescence immunoassay (CLIA) methodology.

Interpretation of Report:

The summary score provided for Dairy Zoomer is a unified score calculated from the IgE, IgA and IgG reactivity of the individual to the respective antigens with higher weightage for IgE than IgA than IgG. Weightage is also assigned to the antigens based on their importance and abundance in the specific food that is tested. This considers the titer value even when the result may be in control. Additionally, the summary page summarizes the list of antigens with antibody titers that are outside the normal reference range.

This is followed by a complete list of all antigens tested including IgG, IgA and IgE antibody titers (as applicable for each analyte tested). Reference ranges have been established for adult population using 2000 healthy individuals. A 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. Vibrant utilizes proprietary reporter analysis which is designed to assay specific total IgG (subclasses 1, 2, 3, 4), total IgA (subclasses 1, 2) and total IgE antibodies. Additionally, the previous value (if available) is also indicated to help check for improvements every time the test is ordered.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for Dairy Zoomer 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/dietitian for medication, treatment, or lifestyle management. This product is not intended to diagnose, treat, or cure any disease.

Please note:

It is important that you discuss any modifications to your diet, exercise, and nutritional supplementation with your physician before making any changes. Pediatric reference ranges have not been established for this test.

Allergen

No markers are outside the normal reference range

Dairy Zoomer

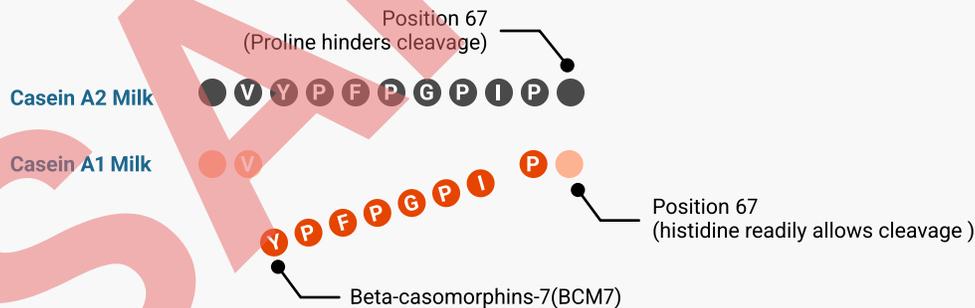
Dairy Score	Current	Previous	Result	Reference
Milk Score	4.7			≤2.0

CASEIN	Current	Previous	Result	Reference
β-casein IgG	4.3			≤2.0

β-casein possesses only one phosphoprotein and causes low levels of cholesterol in the blood.⁵ A1 and A2 β-casein are genetic variants of the β-casein milk protein that differ by one amino acid. Human milk and goat's milk do not contain A1 β-casein. According to research, bovine albumin peptide may be a possible trigger of insulin-dependent diabetes mellitus.⁶ Several observational studies indicate that drinking A1 milk during childhood may increase the risk of type 1 diabetes and heart disease.^{7, 8, 9}

Beta-casomorphin (BCM) IgG	5.1			≤2.0
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Beta-casomorphins (BCMs) are a group of peptides with opioid properties and are formed from proteolytic digestion of β-casein. The difference between the A1 and A2 type beta-casein variants is a single amino acid substitution at the 67th residue of the 209-amino acid beta casein protein chain. The sole difference between A1 and A2 takes place at amino acid position 67, where histidine is substituted for proline. The proline forms a tight bond with amino acids on either side of it, but histidine does not. In the human digestive tract, because of the weakness of the peptide bonds with histidine, a peptide consisting of 7 amino acids breaks off. This peptide is BCM-7 and is also an opioid peptide. BCM7 has also been linked to symptoms of autism and schizophrenia (animal and human trials) and BCM7 has been widely reported to be found in the urine of autistic people.¹³ An association between schizophrenia and pre-illness onset levels of immunoglobulin G (IgG) antibodies to cow's milk casein has also been identified.¹⁴ A study reported significantly increased levels of antibodies to bovine casein and casein subunits in individuals with recent onset psychosis and long-term schizophrenia. This data suggested that anti-casein antibodies arise early during the course of disease and are likely to persist for many years.¹⁵



Dairy Zoomer

CASEIN		Current	Previous	Result	Reference
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αS2-casein & Retinal S-antigen overlap	IgG	3.7			≤2.0 (kU/L)

Retinal S-antigen is one of the most potent uveitogenic antigens. Uveitis is an inflammation of the middle layer of the eye (uvea). It has been described that peptides from αS2-casein of cow's milk could cross-react with retinal S-antigen, due to their similarities in amino acid sequence, causing an inflammation reaction in the eye. Enhanced antibody titers to the αS2-casein have been detected in serum of uveitis patients.⁴



A1 β-casein & Islet cell overlap	IgG	3.7			≤2.0

Amino acid sequence similarities between A1 β-casein and islets of Langerhans cell proteins may lead to the development of type 1 diabetes. Islets of Langerhans are tiny clusters of cells scattered throughout the pancreas – the organ which produces insulin. An antibody produced to this milk antigen could cross react with the islets leading to type 1 diabetes.⁵⁻¹⁰ It has been demonstrated that consumption of the milk containing A1 β-casein was associated with greater gastrointestinal symptoms – i.e. longer gastrointestinal transit times, softer stools, and diarrhea.¹¹ Consumption of milk containing only A2 β-casein did not adversely affect these mentioned variables, indicating that the changes observed with milk containing both β-casein types were attributable to the presence of A1 β-casein.



WHEY		Current	Previous	Result	Reference
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α-Lactalbumin	IgG	5.4			≤2.0

It comprises ~25 % of the total whey protein content in milk. α-lactalbumin is vital to the process of milk synthesis, especially for lactose. Bovine alpha-lactalbumin has a high homology with human alpha-lactalbumin. It provides anticarcinogenic, antibacterial, and antiviral activity.¹⁸⁻¹⁹ α-lactalbumin is rich in cysteine, an amino acid used to make glutathione. Glutathione is a strong antioxidant which helps increase immunity.

Lactoferrin	IgG	4.7			≤2.0

It is an iron-binding glycoprotein from the transferrin family. Lactoferrin (Lf) has been shown to be involved in several physiological and protective functions, including regulation of iron absorption in the bowel, as well as antioxidant, anticancer, anti-inflammatory, and antimicrobial activities. It also displays a potent antiviral activity against both enveloped and naked viruses like cytomegalovirus (CMV), herpes simplex virus (HSV), human hepatitis C (HCV), and human hepatitis B viruses (HBV).¹⁻²⁶ In addition, there is growing evidence of specific immunomodulatory activity of Lf in adults and newborns where, beyond the well-known nutritional immunity, Lf is of particular importance for the development of the immune system.²⁵

Dairy Zoomer

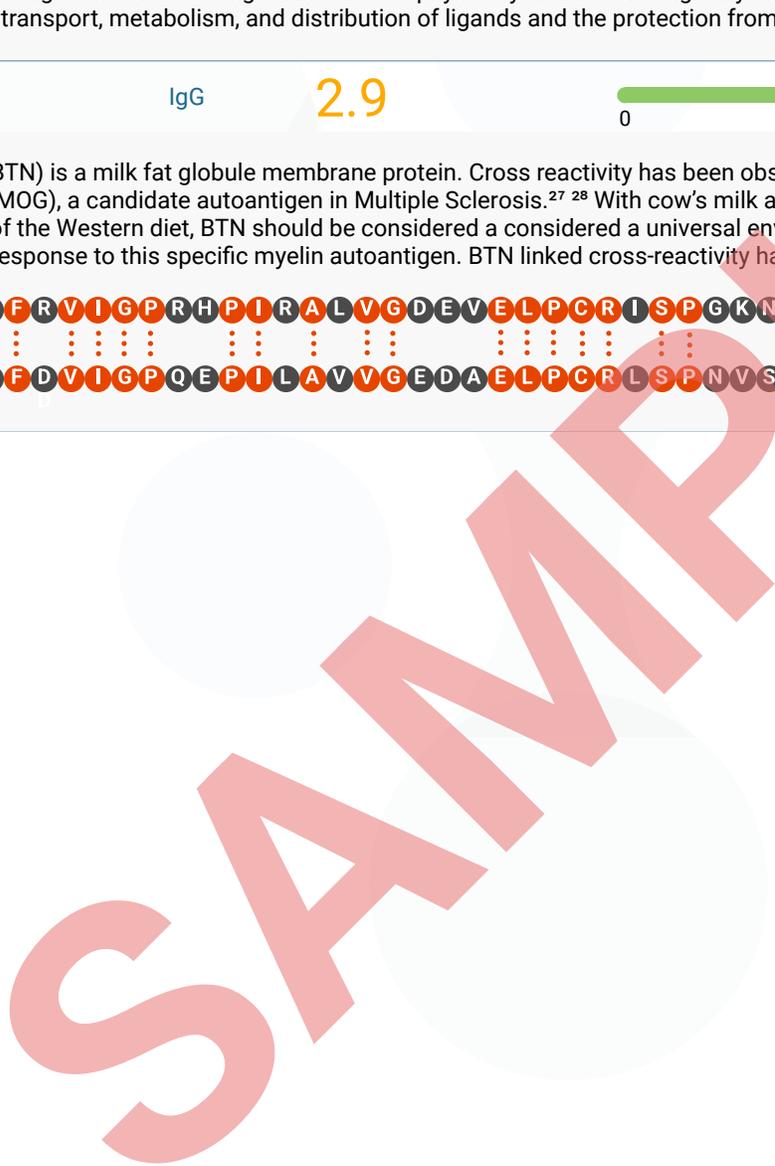
WHEY		Current	Previous	Result	Reference
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Serum albumin	IgG	4.0			≤2.0
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It is a serum protein and comprises about 2-5% of whey protein. Bovine serum albumin is used as a common additive in processed foods due to its high resistance to degradation.²³ It is physically and immunologically very similar to human blood serum albumin.²⁴ Its key role is the transport, metabolism, and distribution of ligands and the protection from free radicals.²⁵

Butyrophilin	IgG	2.9			≤2.0
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Butyrophilin (BTN) is a milk fat globule membrane protein. Cross reactivity has been observed between BTN and myelin oligodendrocyte glycoprotein (MOG), a candidate autoantigen in Multiple Sclerosis.^{27 28} With cow's milk and dairy products being staple nutritional components of the Western diet, BTN should be considered a universal environmental factor that can influence the autoimmune response to this specific myelin autoantigen. BTN linked cross-reactivity has also been identified in autistic patients.²⁹



Allergen

Test Name	Current	Previous	Result	Reference
Dairy IgE (kU/L)	<0.1			≤0.34

Dairy Zoomer

CASEIN		Current	Previous	Result	Reference
αS1-casein & αS2-casein	IgA	0.9			≤2.0
	IgG	1.0			≤2.0
αS2-casein & Retinal S-antigen overlap	IgA	0.6			≤2.0
	IgG	3.7			≤2.0 (kU/L)
κ-casein	IgA	0.6			≤2.0
	IgG	0.9			≤2.0
A1 β-casein & Islet cell overlap	IgA	0.4			≤2.0
	IgG	3.7			≤2.0
β-casein	IgA	0.3			≤2.0
	IgG	4.3			≤2.0
Beta-casomorphin (BCM)	IgA	0.8			≤2.0
	IgG	5.1			≤2.0
WHEY		Current	Previous	Result	Reference
α-Lactalbumin	IgA	0.9			≤2.0
	IgG	5.4			≤2.0
β-Lactoglobulin	IgA	0.7			≤2.0
	IgG	1.3			≤2.0
Serum albumin	IgA	0.9			≤2.0
	IgG	4.0			≤2.0

Dairy Zoomer

WHEY		Current	Previous	Result	Reference
Lactoferrin	IgA	0.2			≤2.0
	IgG	4.7			≤2.0
Butyrophilin	IgA	1.5			≤2.0
	IgG	2.9			≤2.0

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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.

Allergen-specific IgE assays do not demonstrate absolute positive and negative predictive values for allergic disease. Clinical history must be incorporated into the diagnostic determination. Quantification of specific IgG, IgA antibodies is not an FDA- recognized diagnostic indicator of allergy.

Dairy Zoomer 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 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.

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