DNA CONNEXIONS®

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Lab Director: Robert McMullen, PhD
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Patient: Sample, Sally (1/27/64) Doctor: **Jane Doe, MD** **Gluten Intolerance Panel**

Sample Collected	Sample Received	Sample Tested	Test Reported
01/01/2020	01/03/2020	01/09/2020	01/11/2020

Sample type: **SuperFloss**

Test performed by: L. Douglas
Test ID: 54238

Results:

HLA-DQB1*02	HLA-DQA1*0501	HLA-DQB1*0302 Exon2	HLA-DQB1*0302 Exon3
Absent	**Present**	**Present**	**Present**

Test Information

This test is designed to detect four genes within buccal (cheek) cells that are collected in saliva. The genes are: HLA-DQB1*02; HLA-DQA1*0501; HLA-DQB1*0302 Exon2; and HLA-DQB1*0302 Exon3. HLA stands for a "Human Leukocyte Antigen". A leukocyte is the name for a White Blood Cell (WBC). An antigen is a substance that causes the human immune system to react. Human Leukocyte Antigen (HLA) is a substance that is located on the surface of white blood cells. This substance plays an important role in the body's immune response.

The presence of *any* of the HLA genes in your sample indicates a marked sensitivity to gluten, but does not mean you have a gluten intolerance; nor is it a confirmation or diagnosis of Celiac Disease. The presence of all four HLA genetic markers is indicative of gluten intolerance and highly suggestive of Celiac Disease.

A Polymerase Chain Reaction (PCR) is a scientific technique in molecular biology used to amplify a single or a few copies of a piece of DNA into thousands, even millions of copies of an identical DNA sequence. This is the technology used to analyze the DNA that was extracted from your cheek cells in the saliva sample you submitted.

General Information

Gluten-sensitive enteropathy is an inflammatory disease of the small intestine that is precipitated by the ingestion of gluten in genetically susceptible persons. Gluten sensitivity, including gluten intolerance, is a spectrum of disorders including Celiac Disease, in which gluten has an adverse effect on the body. Gluten is a compound protein that is found in foods processed from wheat and related grain species, including barley and rye. The National Institutes of Health (NIH) reported in 2012 that approximately 1 in 133 people in the nation have a hypersensitivity to gluten[1]; many of these people are completely intolerant to gluten, while others have been diagnosed with Celiac Disease.

Gluten intolerance and Celiac Disease are autoimmune disorders that cause the body's immune system to produce antibodies that target gluten once it enters the blood during the human body's digestive processes. Symptoms include bloating, flatulence, abdominal pain and discomfort, diarrhea, muscular disturbances, headaches and bone and joint pain. Exclusion of dietary gluten often results in healing of the mucosa, resolution of the malabsorptive state, and reversal of most, if not all, effects of inflammation caused by gluten ingestion.

REFERENCES

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[3]Mooney, P. D., Aziz, I. and Sanders, D. S. (2013), Non-celiac gluten sensitivity: clinical relevance and recommendations for future research. Neurogastroenterology & Motility, 25: 864–871. doi: 10.1111/nmo.12216

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