

GLUTEN-ASSOCIATED
CROSS-REACTIVE FOODS
& FOODS SENSITIVITY

ARRAY 1
MUCOSAL GLUTEN
REACTIVITY SCREEN

ARRAY 2
INTESTINAL ANTIGENIC
PERMEABILITY SCREEN

ARRAY 3
WHEAT/GLUTEN
PROTEOME REACTIVITY
AND AUTOIMMUNITY

ARRAY 5
NEUROAUTOIMMUNITY
PANEL

ARRAY 4

BLOOD SERUM

ARRAY 4 – Antibody

GLUTEN-ASSOCIATED CROSS-REACTIVE FOODS & FOODS SENSITIVITY™

- ▶ Identify additional dietary proteins to which the Gluten-Sensitive or Celiac patient is sensitized
- ▶ Detect cross-reactions in the non-responsive patient
- ▶ Categorize the 1-in-2 GS or CD patient who is also sensitive to dairy products
- ▶ Isolate triggers of gut inflammation
- ▶ Design an effective diet plan



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GLUTEN-ASSOCIATED CROSS-REACTIVE FOODS & FOODS SENSITIVITY™

Serum Specimen

Cow's Milk IgG + IgA*
 Alpha-Casein & Beta-Casein
 IgG + IgA*
 Casomorphin IgG + IgA*
 Milk Butyrophilin IgG + IgA*
 American Cheese IgG + IgA*
 Chocolate IgG + IgA*
 Sesame IgG + IgA*
 Hemp IgG + IgA*
 Rye IgG + IgA*
 Barley IgG + IgA*
 Polish Wheat IgG + IgA*
 Buckwheat IgG + IgA*
 Sorghum IgG + IgA*
 Millet IgG + IgA*
 Spelt IgG + IgA*
 Amaranth IgG + IgA*
 Quinoa IgG + IgA*
 Yeast IgG + IgA*
 Tapioca IgG + IgA*
 Oats IgG + IgA*
 Coffee IgG + IgA*
 Corn IgG + IgA*
 Rice IgG + IgA*
 Potato IgG + IgA*

*Combined

Many times, gluten-free foods, which are supposed to be safe, can be offensive to some individuals. This can be due to sensitivity or a phenomenon called Cross-Reactivity. Cross-reactivity is an immune reaction between an antibody and an antigen (casein), in which the antibody was generated against a different, but similar, antigen (gliadin). The classical definition of molecular mimicry, or antigenic similarity, predicts that autoreactive Th-1 lymphocytes are activated by epitopes derived from dietary proteins or microbial infections. After resolution of the infection or elimination of dietary protein, the activated autoreactive T-cells and food-specific antibodies turn against self-tissue, causing autoimmune disease.

Normal immune response is specific to each single antigen. B-cells make antibodies targeted to recognize each unique antigen encountered. However, some antigens are a mixture of macromolecules (proteins, bacteria, toxins, etc.), which contain several epitopes. Immune contact with a complex antigen can stimulate multiple immune responses to the individual macromolecules that make up the antigen as well as the individual epitopes of each macromolecule.

Patients with Gluten Sensitivity and Celiac disease are sensitized to a broad range of dietary proteins due to enzyme dysfunction, villi damage, or other disorders. A common problem is the digestion of dairy products; the casein protein, in particular. Consuming these food products will cause persistent symptoms and clinical complaints similar to the initial discomforts of the gluten sensitivity, which may result in neuroautoimmune disorders.

If a gluten-sensitive patient is strictly following a gluten-free diet (GFD), and still exhibits gluten antibodies, a cross-reactive mechanism should be suspected. This may be one explanation as to why complete normalization of gut lesions is very rare in adult patients with Celiac disease (8%), despite gluten-free diet compliance. Although a majority (65%) feels better, the ensuing inflammation in the gastrointestinal tract, due to cross-reactions with—and sensitization to—an array of food antigens, remains a cause for clinical concern. When the patient, despite adamant adherence to the gluten-free diet, is non-responsive, continues to exhibit clinical complaints, or has therapy-resistant gut dysbiosis, an assessment of IgG + IgA antibodies to an array of food antigens associated with gluten, or known to cross-react with gluten, can guide the Healthcare Practitioner in tailoring a recovery diet plan and preventing devastating autoimmune disorders.

Recommended for patients who:

- Have Gluten Sensitivity or Celiac disease
- Are experiencing limited improvements or are non-responsive on a gluten-free diet
- Have gut dysbiosis, which appears to be resistant to standard therapy

Specimen Requirement:
2 mL serum



For more detailed information about this test, including the Clinical Application Guide and related references, please visit www.CyrexLabs.com