CYREX Laboratories

CLINICAL SPECIFICATIONS

PEANUT AGGLUTININ

Antigen Made From:

Peanut Agglutinin purchased from an antigen supplier

Associated With:

Peanut Agglutinin immune reactivity

Known Cross-Reactions:

Clinical Significance:

Peanut agglutinin is a plant lectin protein; lectins target and bind particular sugar sequences in carbohydrates. The name is derived from peanut agglutinin's ability to stick cells together: agglutinate. Agglutinins are lectins found in a variety of food stuffs including nuts. Peanut agglutinin is known to bind the carbohydrate sequence Gal-β(1-3)-GalNAc, a disaccharide.[1]

This disaccharide is known as the T antigen, which has been shown to be present on the cell surfaces.[2,3] Lectins have been shown to affect the structure and the permeability of the intestine.[4] Studies on food immune reactivities predominantly use raw food antigens. However, some researchers have noted that heating or combining food proteins can change their antigenicity.[5-7]

This array tests for IgG and IgA food immune reactivity.[8,9] Equivocal or out-of-range results indicate antibody reactivity to the tested food antigen. We tested 288 blood donor sera against peanut agglutinin antigens at optimal dilution, 8.3% of these donors were IgG and IgA reactive.

Due to cross-reactivity, possible connections between food antigens and human autoimmunity has been previously suggested because proteins in nature can have a similarity in sequence and structure to certain human tissues.[10-13]

Data suggests that eliminating foods identified using IgG antibody food testing can play a role in improvement of symptoms.[14] Because certain food components can lead to gut flora changes and gut permeability, eliminating specified food antigens should result in the reduction of antigenic stimuli and the improvement of symptoms.[14,15]

The results of this food array may be used to develop and implement an immune targeted dietary plan, which includes the avoidance of triggering and known cross-reactive foods. Furthermore, when followed over time, avoidance/prevention treatment plans tailored and supervised by the ordering healthcare professional, may help: (a) repair the gut barrier; and (b) re-establish oral tolerance to the offending food.[14,15]

References:

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