

CLINICAL SPECIFICATIONS

CANOLA OLEOSIN

Antigen Made From:

Canola Oleosin antigen purchased from an antigen supplier

Associated With:

Canola Oil immune reactivity

Known Cross-Reactions: Mugwort, Celery, Carrots, Fennel, Chamomile, Pepper, Mustard, Dill, Parsley, Coriander, Caraway, Aniseed, Sunflower seeds.¹

Clinical Significance:

Canola is produced from the seed of the rape plant and oleosin is the major protein found in canola. The proteins in canola include albumins, globulins, prolamins, glutelins.¹ Seed plants with high oil content contain oleosin, a structural protein found in the monolayer of oilbodies.^{2,3} 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.⁴⁻⁶

This array tests for IgG and IgA food immune reactivity.^{7,8} Equivocal or out-of-range results indicate antibody reactivity to the tested food antigen. We tested 288 blood donor sera against canola oleosin antigens at optimal dilution, 11.4% 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.⁹⁻¹²

Data suggests that eliminating foods identified using IgG antibody food testing can play a role in improvement of symptoms.¹³ 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.^{13,14}

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.^{13,14}

References:

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