

## CLINICAL SPECIFICATIONS

### LATEX HEVEIN

#### Antigen Made From:

Latex Hevein was purchased from antigen supplier

#### Associated With:

Latex immune reactivity

**Known Cross-Reactions:** Anti-EBV early antigen IgG, anti-EBV EBNA IgG, Anti-*B. burgdorferi* antibodies, anti-Rotavirus IgG;<sup>1</sup> Thyroglobulin, Triiodothyronine (T3);<sup>2</sup> Buckwheat;<sup>3</sup> Banana, Avocado, Chestnut, Kiwi;<sup>4</sup> Custard Apple, Eggplant<sup>5</sup>

#### Clinical Significance:

Natural latex is a milky fluid found in 10% of all flowering plants (angiosperms). It is a complex emulsion consisting of proteins, alkaloids, starches, sugars, oils, tannins, resins, and gums that coagulate on exposure to air. Hevein is the main antibody-binding epitope of the major latex allergen prohevein. Hevein-like protein domains are found in fruit class I chitinases.<sup>6</sup> There is major cross-reactive antigen among foods, such as banana or other fruits like chestnuts or avocados and latex.<sup>7</sup> About 1% of the population has immune reactivity to latex; however, the National Institute for Occupational Safety and Health Alert estimates that between 8 and 12% of healthcare workers have immune reactions to latex.<sup>8</sup> 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.<sup>9-11</sup>

This array tests for IgG and IgA food immune reactivity.<sup>12,13</sup> Equivocal or out-of-range results indicate antibody reactivity to the tested food antigen. We tested 288 blood donor sera against latex hevein antigens at optimal dilution, 15.6% 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.<sup>14-17</sup>

Data suggests that eliminating foods identified using IgG antibody food testing can play a role in improvement of symptoms.<sup>15</sup> 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.<sup>18,19</sup>

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.<sup>18,19</sup>

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