

## Venom

IgE vs Bee and Wasp both positive;  
Non-glycosylated Ves v 5 specific for  
Wasp

Non-glycosylated Api m 1 specific for Bee

## Latex

Hev b 1, 3, 5, 6.01, 6.02 and 8.

## Wheat

Omega-5 gliadin.

## Profilin

Timothy: rPhl p 7, rPhl p12

## References

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- Knop, de et al. Age-related sensitization profiles for hazelnut (*Corylus avellana*) in a birch-endemic region. Pediatric allergy and immunology, 2011; 22:1, p. e139-e149
- Matsuo H, et al. Sensitivity and specificity of recombinant omega-5 gliadin-specific IgE measurement for the diagnosis of wheat-dependent exercise-induced anaphylaxis. Allergy; 2008; 63:233-6.
- Mittermann I et al. Recombinant allergen-based IgE testing to distinguish bee and wasp allergy. J Allergy Clin Immunol; 2010; 125:1300-1307
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# IgE to specific allergen components and ISAC

## Immunology



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## Sample Requirements

### Specimen Type:

Serum

### Sample Volume

Individual components require 140µl plus 50µl per component of serum.

ISAC requires a minimum of 50µl serum.

Please avoid freeze/thawing of serum which should be kept at 4°C until posting.

Send samples by first class post at ambient temperature to the address on the back of this leaflet.

## Clinical Use of IgE CRD (component resolved diagnostics)

Most biological sources of antigens are mixtures of proteins and glycoproteins. The clinical significance of these in allergic disease varies from being associated with severe clinical reactions to being clinically irrelevant. Allergen extracts from plants in particular contain “pan-allergens” that cause cross reactions e.g. profiling. Often the cause of allergic symptoms is obvious from the history but specific IgE can be found when there is no clear history of recent exposure to assess the clinical response. IgE to the individual components and the suggested testing schemes offered allow

discrimination between IgE directed against components associated with a high risk of symptoms from those that have a low risk. In most cases, a negative (conventional) specific IgE result (please see Specific IgE page on [www.cityassays.org.uk](http://www.cityassays.org.uk)) has a good negative predictive value i.e. allergy is excluded and no further testing is required. However, for bee and wasp venom allergy, component testing offers increased sensitivity as well as specificity.

## City Hospital IgE Component Resolved Diagnostic Service

### Individual Component Assays

Samples are processed on a Phadia ImmunoCAP 250 using individual Caps. QC is by generic IgE standards and the assay is quality assured through the NEQAS UK specific IgE scheme.

### ISAC (Immuno Solid-phase Allergen Chip)

The assay uses arrays of 112 individual recombinant or purified single proteins bound to a biochip. Any IgE present to components is bound then detected using a microarray reader, calibrated against the manufacture’s standard to give a semi-quantitative result.

## Reference Range & Interpretation of results

### CRD

For individual components, values over 0.35 KUA/L are considered positive although full ROC analysis is lacking for all but Ara h 2.

### ISAC

The assay is semi-quantitative and any positive result indicates the presence of IgE to that component; the significance depending on the component and level. Interpretive advice is given with all ISAC reports by a consultant immunologist.

## Components Available

### Peanut

Ara h 1, 2, 3, 8, 9.

### Hazelnut

Cor a 8  
Cor a 1

### Egg

Gal d 1 Ovamucoid.

### Oral Allergy syndrome

As the range of triggers is large, we would recommend an ISAC panel as a cost effective way of confirming OAS vs true nut or LTP related fruit allergy.

