Lab Dept: Chemistry

Test Name: ALLERGEN IGE, HONEYBEE

**General Information**

Lab Order Codes: HBEE

Synonyms: Allergy testing; Specific IgE; Immunocap; (RAST)

CPT Codes: 86003 – Allergen specific IgE; quantitative or semi quantitative, for each allergen

Test Includes: IgE antibody level specific to the honeybee allergen.

**Logistics**

Test Indications: Testing for IgE antibodies may be useful to establish the diagnosis of an allergic disease and to define the allergens responsible for eliciting signs and symptoms.

Testing also may be useful to identify allergens responsible for anaphylaxis, to confirm sensitization to particular allergens prior to beginning immunotherapy, and to investigate the specificity of allergic reactions to insect venom allergens, drugs, or chemical allergens.

Clinical manifestations of immediate hypersensitivity (allergic) diseases are caused by the release of proinflammatory mediators (histamine, leukotrienes, and prostaglandins) from immunoglobulin E (IgE)-sensitized effector cells (mast cells and basophils) when cell bound IgE antibodies interact with an allergen. In vitro serum testing for IgE antibodies provides an indication of the immune response to allergen(s) that may be associated with allergic disease.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: HBV)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 – 3 days, set up daily, Monday – Saturday

Special Instructions: N/A
**Specimen**

**Specimen Type:** Blood

**Container:** SST (Gold, marble or red) tube

**Draw Volume:**
- 1 allergen: 1.5 mL blood
- >1 allergens: 1.5 mL + 0.3 mL for each additional allergen.

**Processed Volume:**
- 0.3 mL serum for first allergen and 0.5 mL serum for up to 5 allergens.
- For >5 allergens: 0.5 mL + 0.05 mL for each additional allergen.

**Collection:** Routine venipuncture

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum aliquot into plastic tube. Store and ship at refrigerated temperatures.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimens

**Interpretive**

**Reference Range:** Negative

<table>
<thead>
<tr>
<th>Class</th>
<th>IgE kU/L</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>&lt;0.35</td>
<td>Negative</td>
</tr>
<tr>
<td>1</td>
<td>0.35 - 0.69</td>
<td>Equivocal</td>
</tr>
<tr>
<td>2</td>
<td>0.70 - 3.49</td>
<td>Positive</td>
</tr>
<tr>
<td>3</td>
<td>3.50 - 17.4</td>
<td>Positive</td>
</tr>
<tr>
<td>4</td>
<td>17.5 – 49.9</td>
<td>Strongly Positive</td>
</tr>
<tr>
<td>5</td>
<td>50.0 – 99.9</td>
<td>Strongly Positive</td>
</tr>
<tr>
<td>6</td>
<td>≥100</td>
<td>Strongly Positive</td>
</tr>
</tbody>
</table>
Interpretation: Detection of IgE antibodies in serum (Class 1 or greater) indicates an increased likelihood of allergic disease as opposed to other etiologies and defines the allergens that may be responsible for eliciting signs and symptoms. The level of IgE antibodies in serum varies directly with the concentration of IgE antibodies expressed as a class score or kU/L.

**Critical Values:**
N/A

**Limitations:**
Allergens <0.35 kU/L will be reported as Negative.

Testing for IgE antibodies is not useful in patients previously treated with immunotherapy to determine if residual clinical sensitivity exists, or in patients in whom the medical management does not depend upon identification of allergen specificity.

Some individuals with clinically insignificant sensitivity to allergens may have measurable levels of IgE antibodies in serum, and results must be interpreted in the clinical context.

False-positive results for IgE antibodies may occur in patients with markedly elevated serum IgE (>2500 kU/L) due to nonspecific binding to allergen solid phases.

**Methodology:**
ImmunoCAP Fluorescence Enzyme Immunoassay (FEIA)

**References:**
Mayo Medical Laboratories Web Page December 2017