

Allergen-Specific IgG Testing

Test Name: Multiple

Test Code: Multiple allergens available; request most current list from client services.

CPT Code: 86849 or 86001

Clinical Utility:

Although there have been many publications concerning the measurement of allergen-specific IgG, the clinical utility of such tests has not been established except in special situations. Thus, the quantitative IgG test should only be ordered by specialists who recognize the limitations of the test. The normal reference ranges reported represent the expected results for individuals who have no unusual exposure and have not been immunized with the indicated allergen. The ranges reported have no disease-associated significance.

Specimen Requirements:

- 0.5 mL serum minimum is requested. Up to 30 allergens can be tested with 0.5 mL of serum.
- Blood should be collected and allowed to clot prior to centrifugation.
- Specimen can be shipped at ambient temperature.

Background for Test Application:

Patients can produce allergen-specific IgG antibodies to a variety of allergens. These antibodies may follow exposure by inhalation, ingestion or injection.

Units & Normal Reference Range:

The units are micrograms/mL of specific IgG. The reference varies by allergen.

	mcg/mL of IgG
Lower Limit of Quantitation*	1.0 or 2.0
Upper Limit of Quantitation**	100 or 200

Reference ranges vary by allergen (Refer to report).

**LLOQ for EIA is 1.0 and FEIA is 2.0.*

***ULOQ for EIA is 100 and FEIA is 200.*

Method:

- Enzyme immunoassay (EIA or FEIA).
- A standard curve is used to calculate the specific IgG concentrations. The calibrators are referenced to the International Reference Preparation for serum immunoglobulins (WHO 67/97).
- This test was developed and its performance characteristics determined by IBT Reference Laboratory. It has not been cleared or approved by the U.S. Food and Drug Administration.

Pollens and other Inhalants. Physicians sometimes use allergen-specific IgG or IgG4 to monitor patients undergoing immunotherapy. Increasing IgG and IgG4 responses following the administration of immunotherapy generally correlate with a positive treatment outcome.

Venoms. Venom-specific IgG & IgG4 have been reported to be helpful in evaluating and optimizing therapy in patients with venom hypersensitivity. Low levels of so-called "IgG blocking antibody" are associated with the more serious reactions to challenge.

Fungal Allergens. Immunologic responses to fungi may be useful in the evaluation of patients with hypersensitivity pneumonitis and fungal sinusitis because the antibodies indicate exposure and immunologic sensitization. However, there is no established immuno-pathological threshold for these IgG responses.

Food Allergens. The clinical utility of food-specific IgG and IgG4 tests has not been established. These tests can be used in special clinical situations to select foods for evaluation by diet elimination and challenge in patients who have food-related complaints. It should be recognized that the presence of food-specific IgG alone cannot be taken as evidence of food allergy and only indicates immunologic sensitization by the food allergen in question. This test should only be ordered by physicians who recognize the limitations of the test. Reference ranges are established on a population of healthy individuals with no food-related complaints. The geometric mean plus two standard deviations is used as the reference range.

Other Allergens. The use of this test method has been reported as helpful in the diagnosis of ABPA and hypersensitivity pneumonitis, especially with avian antigens. The application to other antigens such as occupational allergens and drugs and biological allergens is an area of investigation.

For more information, contact

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