



Specific IgG



Quantitative determination of circulating specific immunoglobulin G by non-competitive enzyme immunoassay.

At the present point of time determination of allergy-specific IgG in sera gains increasing interest in terms of atopic diseases. There is evidence to suggest that increasing IgG titers in sera is associated to hypersensitivity of immediate-type allergy (type I). Different investigations revealed higher specific IgG titers in patients with atopic dermatitis and allergic asthma, which have been sensitized against house dust mite, food, moulds or in particular insect venoms. This test has special importance in diagnosis of suspected allergic reactions of type III. Further this test can be used to monitor specific immunotherapy under consideration of specific IgG guidelines (under restrictions). Allergy-specific antibodies belonging to isoform G can be found both in serum of healthy individuals and patients suffering from allergy. Generation of IgG is part of normal immune response to exposition of foreign substances. Thus results of specific IgG determination in serum should be only part of diagnosis.

BDL test for specific IgG measures circulating specific IgG bound to purified allergens linked to chemically activated allergen discs as solid phase.

Kit Components

1. Conjugate:

1 bottle containing 5.2 mL monoclonal anti-human IgG conjugated to alkaline phosphatase in 0.01 M PBS for stabilization preservative: 0.02% sodium acid

2. Washing buffer (concentrate):

1 bottle containing 75 mL concentrated, Tris-buffered sodium chloride solution with Tween 20; preservative: 0.02% sodium acid

3. Substrate buffer:

1 bottle containing 20 mL diethanolamin / magnesium chloride solution; preservative: 0.02% sodium acid

4. Substrate pellets:

1 Cap containing 1 substrate pellet with 30 mg p-nitrophenylphosphate (p-NPP)

5. Stopping solution:

1 bottle containing 20 mL 1M sodium hydroxide.

6. Calibrations (IgG standards):

Reference discs: IgG rabbit anti-human Kaninchen anti-Human) in PBS; preservative: 0.02% sodium acid

Reference sera (standards) 1, 2, 3, 4: 4 bottles containing each 0.4 mL human sera with defined human IgG antibodies (for creation of calibration curve), stabilized by protein matrix; preservative: 0.04% sodium acid

Calibrator 1 = 10 µg IgG/mL

Calibrator 2 = 40 µg IgG/mL

Calibrator 3 = 100 µg IgG/mL

Calibrator 4 = 250 µg IgG/mL

7. Sample diluent:

1 bottle containing 50 mL phosphate buffered sodium chloride solution with Tween 20 and protein stabilizers; preservative: 0.04% sodium acid

Literature:

1. Ring J, 1992: Angewandte Allergologie, MMW Verlag München
2. Debelic M, Wahl R 1996, In-vitro-Tests: Immunglobuline E und G in Fuchs/ Schulz, Manuale allergologicum IV.9, Dusti Verlag, Deisenhofen
3. *In-vitro*-Allergiediagnostik, Positionspaper der DGAI, Allergo Journal 2002; 11:492-506

