IBT Laboratories

Specializing in molecular & cellular immunology

IgA Deficiency Testing

Test Code	6	2107
Test Name	Immunoglobulin A (IgA) Low Range	Anti-IgA
Alternative Names	Low Level IgA	IgG Anti-IgA
CPT Code	82784	83516
Panel Code (both tests)	403107 IgA Deficiency Panel	

Clinical Utility:
For the evaluation of patients with recurrent infection for the possibility of IgA deficiency (IgAD). Patients with IgA deficiency may develop antibodies against IgA that make them susceptible to adverse reactions to blood products including intravenous immunoglobulin. IgAD has also been reported to progress to Common Variable Immunodeficiency (CVID).

Specimen Requirement:
- 1 mL of serum is required.
- Blood should be collected and allowed to clot prior to centrifugation.
- Specimen can be shipped at ambient temperature.

Background For Test Application:
Human IgA plays a critical role in mucosal immunity. The secretory form of IgA is the most common immunoglobulin found in human mucosal secretions and is produced by mucosal B cells. IgA can also be found in human serum and is produced by bone marrow B cells. Selective IgA deficiency (IgAD) is the most common primary immune deficiency occurring in 1 in 600 individuals. It is characterized by decreased serum IgA concentration of <0.05 g/l (5 mg/dL) and normal IgM and IgG levels. Most individuals with IgAD appear healthy and are asymptomatic. Others, however, may have frequent recurrent respiratory infections, allergies, chronic diarrhea, or develop other autoimmune diseases. The potential for anti-IgA antibodies to develop arises when there is an absence of normal IgA. Severe and potentially fatal reactions of anaphylaxis can occur if blood transfusions or intravenous immunoglobulin treatments (IVIG) containing IgA are administered to a patient with anti-IgA antibodies.

Units and Normal Reference Range:

IgA Low Range: Reported in mg/dL. IgA deficiency is indicated if IgA level is < 5 mg/dL for adults. The lower limit of quantitation is 0.04 mg/dL.

Anti-IgA: Reported in U/mL. Normal, healthy individuals who do not have anti-IgA antibodies contain <113 U/mL. The reportable range is 113-1700 U/mL

Method:
IgA Low Range: Radial immunodiffusion

Anti-IgA: ELISA using a mix of IgA_1 and IgA_2 coupled to the solid phase.

References:

1. Hammarstrom L, Vorechovsky I, Webster D. Selective IgA deficiency (SIgAD) and common variable immunodeficiency (CVID). Clin Exp Immunol. 2000; 120:225-231.
2. Burrows D, Cooper MD: IgA Deficiency. Adv Immunol 1997; 65:245-276.
3. Aghamohammadi A, Mohammadi J, Parvaneh N, Rezael N, Moin M, Espanol T. and Hammarstrom L. Progression of Selective IgA Deficiency to Common Variable Immunodeficiency. Int Arch Allergy Immunol 2008;147:87-92.
4. Horn J, Thon V, Bartonkova D, Salzer U, warnatz K, Schlesier M, Peter H, and Grimbacher B. Anti-IgA antibodies in Common Variable Immunodeficeny (CVID): Diagnostic workup and therapeutic strategy. Clin Immunol 2007;122:156-162.

For more information, contact
IBT Laboratories
11274 Renner Boulevard, Lenexa, Kansas 66219
913.492.2224 **800.637.0370**
www.ibtlabs.com