
Lab Dept: Serology

Test Name: GLUTAMIC ACID DECARBOXYLASE ANTIBODY

General Information

Lab Order Codes: GAD65

Synonyms: GAD65 Islet Cell Antibody; Glutamic Acid Decarboxylase (GAD65) Antibody Assay, Serum; 64K Antibody; Anti-GAD Antibodies; Anti-Glutamic Acid Decarboxylase Ab; Beta Cell Antibody; GAD65 Antibody; Glutamic Decarboxylase Antibodies; Islet Cell Antibody; Stiffman Syndrome

CPT Codes: 86341 – GAD65 antibody assay

Test Includes: GAD65 level reported in nmol/L.

Logistics

Test Indications: Assessing susceptibility to autoimmune (type 1, insulin-dependent) diabetes mellitus and related endocrine disorders (eg, thyroiditis and pernicious anemia).

Distinguishing between patients with type 1 and type 2 diabetes.

Confirming a diagnosis of stiff-man syndrome, autoimmune encephalitis, autoimmune ataxia, brain stem encephalitis, autoimmune epilepsy, autoimmune myelopathy, titers greater than or equal to 20.0 nmol/L.

Lab Testing Sections: Serology - Sendouts

Referred to: Mayo Clinic Laboratories (MML test: GD65S)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 3 – 6 days, performed daily

Special Instructions: See [Patient Preparation](#)

Specimen

Specimen Type:	Blood
Container:	Preferred: Red NO GEL Alternate: SST (Gold or marble)
Draw Volume:	4.5 mL (Minimum: 3.0 mL) blood
Processed Volume:	1.5 mL (Minimum: 1.0 mL) serum
Collection:	Routine blood collection
Special Processing:	Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped round bottom plastic vial within 1 hour of collection. Store and ship at frozen temperatures. Forward promptly.
Patient Preparation:	This test should not be requested in patients who have had recently received radioisotopes, therapeutically or diagnostically, because of potential assay interference. The specific waiting period before specimen collection will depend on the isotope administered, the dose given and the clearance rate in the individual patient. Specimens will be screened for radioactivity prior to analysis. Radioactive specimens received in the laboratory will be held 1 week and assayed if sufficiently decayed or canceled if radioactivity remains.
Sample Rejection:	Gross hemolysis; gross lipemia; gross icterus; mislabeled or unlabeled specimens, radioactive specimens

Interpretive

Reference Range:	All ages: < or = 0.02 nmol/L
Critical Values:	N/A
Limitations:	Antibodies specific for glutamic acid decarboxylase (GAD65) account for most, but not all, antibodies detected in the islet cell antibody test (IA-2). IA-2 (a protein tyrosine kinase-like protein) insulin and zinc transporter-8 antibodies complementary islet cell antibodies.
Methodology:	Radioimmunoassay (RIA)
References:	Mayo Clinic Laboratories (August 2021)
Updates:	3/28/2011: CPT update, previously reported as 86341 2/1/2018: Collection container update. 1/25/2020: Specimen volume update. 8/23/2021: Test moved from Esoterix to Mayo.