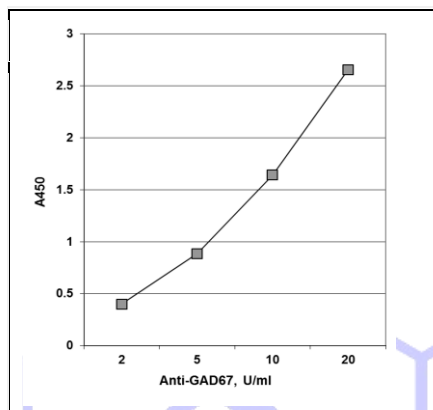


Human Anti-Glutamic Acid Decarboxylase GAD67 Ig ELISA Kit, Cat# 660-130-G67

The Human Anti-GAD67 IgG ELISA Kit is an immunoassay suitable for quantifying or titrating IgG antibody activity specific for GAD67 (glutamic acid decarboxylase) in serum or plasma. Other biological fluids, including tissue culture medium, may be validated for use.



Human Anti-GAD67 IgG ELISA Kit Features

- Human GAD67 recombinant protein, pre-coated, stabilized, ready-to-use 96-well strip plate; shelf life of 6-12 months.
- Multi-level liquid anti-GAD67 IgG Calibrators [20, 10, 5, 2 U/ml]
- For validating assay performance, determining reproducibility between assays, and for normalizing between-assay variation.

The kit detects all IgG isotypes.

- 1:100 or greater sample dilution; 100ul samples (serum or plasma)
- 105 minute, 3 incubation steps at room temp

For research use only.

Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required # of strips.

Step 1. Pipet **100 ul** each of **Calibrator** and sample and controls containing mouse anti-GAD (diluted as required) into predetermined wells. Mix gently and incubate at room temperature for **60 min**.

Step 2. **Aspirate** and **wash** the plate four times. **Add 100ul** of **Anti- Ig-HRP** conjugate to all wells, mix gently and incubate at room temperature for **30 min**.

Step 3. **Aspirate** and **wash** the plate five times. Add **100 ul** of **TMB Substrate** solution to all wells, mix gently, and incubate at room temperature for **15 min**.

Step 4. Pipet **100 ul** of **Stop Solution** into each well and mix gently (positive blue color turns yellow). **Measure OD at 450 nm**. Determine the titer of mouse anti-GAD65 Ig's in each sample; use the Calibrators as reference.

General Information

γ -Aminobutyric acid (GABA) is the major known inhibitory neurotransmitter. The rate-limiting step in the synthesis of GABA is the decarboxylation of glutamate by glutamate decarboxylase (GAD; L-glutamate 1-carboxy-lyase, EC 4.1.115). In the CNS GAD is entirely restricted to GABAergic neurons. GAD is also present in the β -cells of the pancreas and autoantibodies to various GAD polypeptides are detected in insulin-dependent diabetes mellitus. Cloning of GAD genes have identified two subtypes: GAD65 (65 kDa; human 585 AA chromosome 10) and GAD67 (67 kDa; human 594 AA, chromosome 2) share approx. 65% amino acid homology. GAD67 is cytosolic, while GAD65 is membrane associated. Both GAD67 and GAD65 are targets of autoantibodies in people who later develop type 1 diabetes mellitus or latent autoimmune diabetes.

Insulin-dependent diabetes mellitus (IDDM) is thought to result from the autoimmune destruction of the insulin-producing beta cells of the pancreas. Autoantibodies against glutamic acid decarboxylase (Gad65 and Gad67) are usually associated with IDDM are found in stiff-man syndrome, a rare neurological disorder characterized by a high coincidence with insulin-dependent diabetes mellitus (IDDM). Autoantibodies to Gad65 have been detected years before onset of IDDM. Other IDDM-associated autoantibodies, such as those against insulin and cytoplasmic ganglioside of islet cell (ICA) appear later. Anti-Gad65 are also present in the two animal models of IDDM, the non-obese diabetic (NOD) mouse and the biobreeding rat.

ADI's Human Anti-Glutamic Acid Decarboxylase GAD67 IgG ELISA Kit has been developed to measure anti-GAD67 IgGs in serum or plasma. We have used highly purified full length mouse recombinant GAD67 protein to detect the full spectrum of anti-Gad67 IgG.

Related items

660-100-G65	Mouse Anti-Glutamic Acid Decarboxylase 65 (GAD65) Ig's ELISA Kit, 96 tests, Quantitative
660-110-G67	Mouse Anti-Glutamic Acid Decarboxylase 67 (GAD67) Ig's ELISA Kit, 96 tests, Quantitative
GAD651-R-10	Recombinant purified Mouse Glutamic acid decarboxylase 65 (GAD65/GAD2) protein (His-tag)
GAD65-M	Monoclonal Anti-Rat Glutamic acid decarboxylase (GAD65) IgG # 1, aff pure
GAD671-R-10	Recombinant purified Mouse Glutamic acid decarboxylase 67 (GAD67/GAD1) protein (His-tag)
GAD672-R-10	Recombinant purified Human Glutamic acid decarboxylase 67 (GAD67/GAD1) protein (His-tag)
GAD673-M	Monoclonal Anti-Rat Glutamic acid decarboxylase (GAD67/GAD1, 17-130 aa) IgG
660-130-G67-flr	140530A

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