Product Specification Sheet

Human Insulin antibody

Cat # INSL41-A | Rabbit Anti-Human Insulin antibody | **SIZE**: 100 µg

Insulin is a hormone that is central to regulating energy and glucose metabolism in the body. Insulin causes cells in the liver, muscle, and fat tissue to take up glucose from the blood,storing it as glycogen in the liver and muscle. Insulin is a peptide hormone composed of 51 amino acids and has a molecular weight of 5808 Da. It is produced in the islets of Langerhans in the pancreas. The name comes from the Latin insula for "island". Insulin's structure varies slightly between species of animal. Insulin from animal sources differs somewhat in "strength" (in carbohydrate metabolism control effects) in humans because of those variations. Porcine (pig) insulin is especially close to the human version. When control of insulin levels fails, diabetes mellitus will result. As a consequence, insulin is used medically to treat some
forms of diabetes mellitus. Patients with Type 1 diabetes mellitus depend on external insulin (most commonly injected subcutaneously) for their survival because the hormone is no longer produced internally. Patients with Type 2 diabetes mellitus are insulin resistant, and because of such resistance, may suffer from a relative insulin deficiency. Some patients with Type 2 diabetes may eventually require insulin if other medications fail to control blood glucose levels adequately, though this is somewhat uncommon.

Source of Antigen or Antibodies

Uniprot: P01308

Host: Rabbit

Clonality: Polyclonal

Purification: Ammonium sulfate followed by protein affinity chromatography

Immunogen: Recombinant Mature Human Insulin

Species reactivity: Human

Cross reactivity: Species cross-reactivity has not been assessed. Due to the high degree of homology, reactivity is expected with Bovine and Pig.

Subcellular Location: Extracellular region

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (**ADI cat#20320)**

Form & Storage of Antibodies

Affinity pure IgG Solution
Concentration: 0.5 mg/ml Volume: 200 µl
Supplied in PBS, pH 7.4 + 0.1% BSA
The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

Lyophilized powder
Reconstitute powder in 200 µl distilled water to 0.5 mg/ml

Storage:

Short-term: 4°C for 1 month

Long-term: at –20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at –20°C.

Recommended Usage

ELISA: May be used self-paired in ELISAs. Typical concentration is typically 0.1-2.0 µg/ml.

Western Blotting: 0.5-2.0 µg/ml

Immunohistochemistry: 1-10 µg/ml. QC tested using 10 mM sodium citrate pH 6, antigen retrieval buffer. The antibody may work better with no retrieval or different retrieval solutions.

The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Immunofluorescence. These methods have not been tested by ADI.

This product is for In vitro research use only.

Related materials available from ADI

Catalog#	Description
0030-10-B1	Bovine Insulin ELISA Kit
0030-40-1	Mouse Insulin ELISA Kit, High Sensitivity
0030-50-1	Rat Insulin ELISA Kit, High Sensitivity
0030-60-1	Mouse/Rat Proinsulin ELISA Kit
0030N	Human Insulin ELISA Kit
0035-IA	Human Insulin & Insulin Analogs (Lispro/Humalog, Aspart, Glargine, Glulisine, Detemir) ELISA Kit, 96 tests

INSL41-A 191023IA

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com