Product datasheet

Anti-Insulin antibody [K36aC10] ab6995

Overview

Product name Anti-Insulin antibody [K36aC10]
Description Mouse monoclonal [K36aC10] to Insulin
Host species Mouse
Specificity The antibody exhibits cross-reactivity with human proinsulin. This antibody recognizes purified insulin from the pancreas of human, bovine, horse, sheep, and proinsulin from human. Cross reaction has been observed with insulin containing cells in fixed sections of pancreas from human, porcine, dog, rabbit, bovine, sheep, rat, guinea pig and cat.

Tested applications Suitable for: ELISA, Dot blot, IHC-P, RIA
Species reactivity Reacts with: Mouse, Rat, Sheep, Rabbit, Horse, Guinea pig, Cow, Dog, Human, Pig
Immunogen Human insulin.
Positive control Pancreas

Properties

Form Liquid
Storage buffer pH: 7.50
Preservative: 0.05% Sodium azide
Constituents: PBS, BSA
Purity Tissue culture supernatant
Clonality Monoclonal
Clone number K36aC10
Isotype IgG1

Applications

Our Abpromise guarantee covers the use of ab6995 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**ELISA** | Abreviews | Notes
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| | ⭐⭐⭐⭐⭐ | Use at an assay dependent concentration. PubMed: 19572802

**Dot blot** | | Use at an assay dependent concentration.

**IHC-P** | ⭐⭐⭐⭐⭐ | 1/1000. We suggest an incubation period of 30 minutes at room temperature.

**RIA** | | Use at an assay dependent concentration.

### Target

**Function**

Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.

**Involvement in disease**

Defects in INS are the cause of familial hyperproinsulinemia (FHPRI) [MIM:176730].

Defects in INS are a cause of diabetes mellitus insulin-dependent type 2 (IDDM2) [MIM:125852]. IDDM2 is a multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical features are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels.

Defects in INS are a cause of diabetes mellitus permanent neonatal (PNDM) [MIM:606176]. PNDM is a rare form of diabetes distinct from childhood-onset autoimmune diabetes mellitus type 1. It is characterized by insulin-requiring hyperglycemia that is diagnosed within the first months of life. Permanent neonatal diabetes requires lifelong therapy.

Defects in INS are a cause of maturity-onset diabetes of the young type 10 (MODY10) [MIM:613370]. MODY10 is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.

**Sequence similarities**

Belongs to the insulin family.

**Cellular localization**

Secreted.

### Images

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ab6995 staining Insulin in Mouse pancreas tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 10% serum for 45 minutes at 25°C; antigen retrieval was by heat mediation. Samples were incubated with primary antibody (1/1000 in PBS) for 1 hour at 37°C. An Alexa Fluor® 594-conjugated Goat anti-mouse IgG polyclonal (1/4000) (ab150116) was used as the secondary antibody.

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