

## Datasheet for ABIN129507

### anti-Insulin antibody



[Go to Product page](#)

#### 2 Images

#### Overview

Quantity:	100 µg
Target:	Insulin (INS)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Insulin antibody is un-conjugated
Application:	Immunohistochemistry (IHC), Western Blotting (WB), ELISA, Immunoprecipitation (IP), Dot Blot (DB)

#### Product Details

Purpose:	Insulin Antibody
Immunogen:	Immunogen: This protein A purified monoclonal antibody was produced by repeated immunizations with purified human insulin coupled to bovine serum albumin (BSA). Immunogen Type: Native Protein
Clone:	2D11-H5
Isotype:	IgG1 kappa
Cross-Reactivity (Details):	This protein A purified mouse monoclonal antibody reacts specifically with insulin from human and swine sources. Cross reactivity with insulin from mouse and rat does not occur.
Characteristics:	Synonyms: mouse anti-insulin antibody, ILPR antibody, INS antibody, Insulin A chain antibody, Insulin B chain antibody, Insulin precursor antibody, IRDN antibody, Proinsulin antibody, Proinsulin precursor antibody

## Product Details

Purification: Protein A purified

Sterility: Sterile filtered

## Target Details

Target: Insulin (INS)

Alternative Name: INS ([INS Products](#))

Background: Background: Recognizes the 51 amino acid (6 kDa) insulin polypeptide composed of A and B chains. Proinsulin, which has very little biological activity, is cleaved by proteases within its cell of origin into the insulin molecule and the C-peptide basic residue. Insulin enhances membrane transport of glucose, amino acids, and certain acids. It also promotes glycogen storage, formation of triglycerides, and synthesis of proteins and nucleic acids. The main storage site for insulin is the pancreatic islets. Antibodies to insulin are important as b-cell and tumor (insulinoma) markers.

Gene ID: 3630

UniProt: [P01308](#)

Pathways: [NF-kappaB Signaling](#), [RTK Signaling](#), [Positive Regulation of Peptide Hormone Secretion](#), [Peptide Hormone Metabolism](#), [Hormone Activity](#), [Carbohydrate Homeostasis](#), [ER-Nucleus Signaling](#), [Regulation of Carbohydrate Metabolic Process](#), [Feeding Behaviour](#), [Autophagy](#), [Negative Regulation of intrinsic apoptotic Signaling](#), [Brown Fat Cell Differentiation](#), [Positive Regulation of fat Cell Differentiation](#)

## Application Details

Application Notes: Immunohistochemistry Dilution: 1:50 - 1:200  
Application Note: Mouse Anti-Insulin Antibody has been tested by ELISA and dot blot and is suitable for immunohistochemistry, immunoblotting and immunoprecipitation. Insulin has a cytoplasmic localization. Pancreatic tissue or b-cells from islets of Langerhans can be used as a positive control.  
Western Blot Dilution: 1:50 - 1:200  
Immunoprecipitation Dilution: User Optimized  
ELISA Dilution: 1:5,000 - 1:25,000  
Other: User Optimized

Restrictions: For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Images

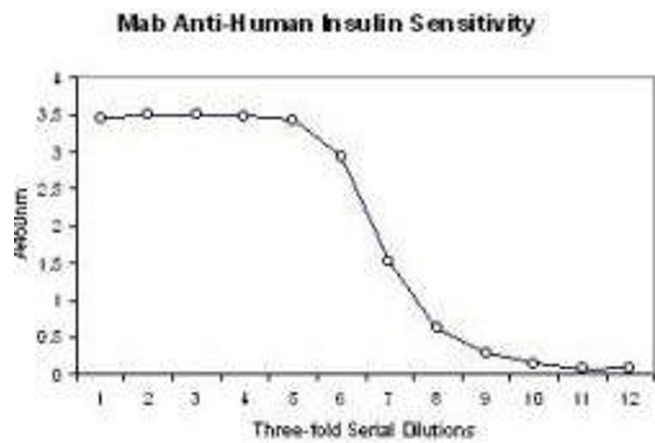


Image 1.



**Image 2.** Diagram of Insulin Structure. Insulin is a polypeptide hormone produced by cells in the islets of Langerhans in the pancreas. Insulin decreases the levels of glucose in the blood and regulates the metabolism of glucose, fats and proteins. In order to meet the demand for insulin needed by diabetics, the hormone is mass-produced with the aid of genetically engineered bacteria, but can also be taken from pigs and cattle. The diagram to the left illustrates the structure of insulin and proinsulin. Proinsulin is a single polypeptide chain of 86 amino acids that permits correct alignment of three pairs of disulfide bonds. Insulin is derived from proinsulin by cleavage of the C-peptide structure at the dipeptides Arg-Arg and Lys-Arg. Insulin is composed of an A chain of 21 amino acids and a B chain of 30 amino acids, the chains being held together by two disulfide bonds. A third disulfide bond is present within the A chain.