

**CUSABIO TECHNOLOGY LLC** 

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## **INS Recombinant Monoclonal Antibody**

Product Code	CSB-RA584163A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P01308
Immunogen	A synthesized peptide derived from human Insulin
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Cardiovascular; Metabolism; Signal transduction
Gene Names	INS
Clone No.	1F6

Image



IHC image of CSB-RA584163A0HU diluted at 1:100 and staining in paraffin-embedded human pancreatic tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

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IHC image of CSB-RA584163A0HU diluted at 1:100 and staining in paraffin-embedded human pancreatic cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

## Description

The INS recombinant monoclonal antibody is developed using protein technology and DNA recombinant technology. Initially, a synthesized peptide from human INS protein was used to immunize mice. After that, the spleen of the mice was extracted under aseptic conditions, and the total RNA of spleen cells was isolated. The cDNA obtained from RNA reverse transcription was then used as a template for the PCR amplification of the INS antibody gene. The INS antibody gene was then inserted into a vector and transfected into host cells for culture. Subsequently, the INS recombinant monoclonal antibody was purified from the supernatant of cell culture using affinity chromatography. This antibody underwent rigorous verification and can now be used in ELISA and IHC experiments for human INS protein detection.

The INS (insulin) protein is a hormone that plays a crucial role in regulating glucose metabolism in cells. It is produced and secreted by pancreatic beta cells in response to elevated blood glucose levels. The primary function of insulin is to stimulate glucose uptake and utilization in peripheral tissues, such as muscle and adipose tissue, and to suppress glucose production in the liver. Insulin also stimulates glycogen synthesis in the liver and muscle, which helps to store excess glucose. Dysregulation of INS can lead to various metabolic disorders, such as diabetes mellitus.