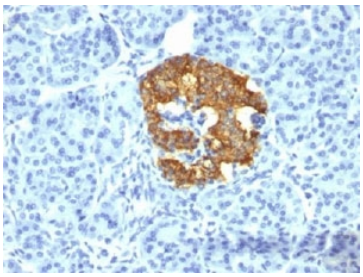
Insulin Antibody 2D11-H5 / INS05 Antibody [clone 2D11-H5 or INS05] (V2156)

Catalog No.	Formulation	Size
V2156-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2156-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2156SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2156IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

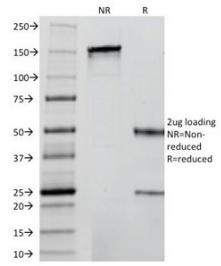
Citations (7)

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	2D11-H5 or INS05
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	3630
Localization	Cytoplasmic
Applications	Flow cytometry: 0.5-1ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 0.1-0.2ug/ml for 30 min at RT
Limitations	This Insulin Antibody 2D11-H5 / INS05 Antibody is available for research use only.



Insulin Antibody 2D11-H5 Staining in Human Pancreatic Islets by IHC. Immunohistochemistry staining of human pancreas using Insulin Antibody (clone 2D11-H5) shows strong brown cytoplasmic labeling concentrated within a pancreatic islet, while the surrounding exocrine tissue shows minimal staining. The sharply localized pattern is consistent with insulin expression by pancreatic beta cells and demonstrates detection of insulin in human pancreatic tissue sections using this INS05 Antibody.



Insulin Antibody 2D11-H5 / INS05 Purity and Integrity by SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free Insulin Antibody (clone 2D11-H5, also designated INS05) shows an intact antibody band at approximately 150 kDa under non-reducing conditions. Under reducing conditions, distinct immunoglobulin heavy and light chains are visible at approximately 50 kDa and 25 kDa, respectively. The expected non-reduced and reduced migration patterns support the integrity and purity of the antibody preparation.

Description

Insulin Antibody 2D11-H5 recognizes insulin, a peptide hormone that plays a central role in glucose homeostasis and metabolic regulation. Insulin is synthesized primarily by pancreatic beta cells as preproinsulin, which is processed to proinsulin and subsequently cleaved to generate mature insulin and C-peptide. Mature insulin consists of A and B chains connected by disulfide bonds and is stored in secretory granules until released in response to metabolic signals such as elevated blood glucose.

Insulin acts through the insulin receptor to regulate carbohydrate, lipid, and protein metabolism. Receptor activation promotes glucose uptake in responsive tissues, stimulates glycogen and lipid synthesis, and influences numerous pathways involved in cellular growth and metabolism. Disruption of insulin production, secretion, or signaling is central to diabetes mellitus and related metabolic disorders, making insulin an extensively studied component of endocrine and metabolic research.

Within the pancreas, insulin expression is strongly associated with beta cells of the islets of Langerhans. This characteristic expression makes insulin an important marker for investigating pancreatic beta-cell identity, development, differentiation, and function. Insulin expression is also widely studied in pancreatic neuroendocrine tumors, particularly insulin-producing tumors, providing applications in research involving beta-cell lineage and insulinoma biology.

Clone 2D11-H5 is a mouse monoclonal antibody generated against purified full-length porcine insulin and is also designated INS05. The 2D11-H5 and INS05 designations have both been used for this antibody, including published research identifying the clone as INS05 (2D11-H5). This INS05 Antibody provides a well-established reagent for investigating insulin expression, pancreatic beta cells, and insulin-producing tumors. NSJ Bioreagents supplies clone 2D11-H5 for research use only.

An Insulin Antibody can be used to investigate insulin expression and its relationship to pancreatic beta-cell biology, endocrine function, glucose regulation, metabolic research, and insulin-producing tumors.

Explore our Beta Cell Marker Antibodies page for additional antibodies targeting proteins involved in pancreatic beta-cell identity, development, function, and insulin secretion.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the Insulin Antibody 2D11-H5 / INS05 Antibody to be titered up or down for optimal performance.

1. No special pretreatment is required for staining of formalin/paraffin tissues.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Full length purified pig Insulin (aa 1-84) was used as the immunogen for this Insulin Antibody 2D11-H5.

Storage

Store the Insulin Antibody 2D11-H5 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

INS antibody, INS05 antibody, insulin beta-cell marker antibody, beta-cell marker antibody, insulinoma marker antibody, IRDN antibody, IDDM2 antibody, ILPR antibody, MODY10 antibody, proinsulin antibody

References (2)

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