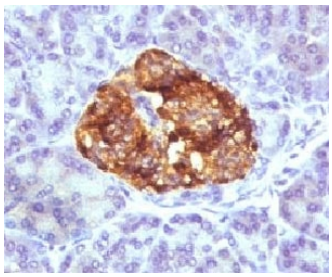
IRDN Antibody BCPH1 / Insulin Monoclonal Antibody [clone BCPH1] (V7133)

Catalog No.	Formulation	Size
V7133-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7133-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7133SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7133IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	BCPH1
Purity	Protein G affinity chromatography
UniProt	P01308
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT (1) Prediluted IHC only format: incubate for 30 min at RT (2)
Limitations	This IRDN Antibody BCPH1 / Insulin Monoclonal Antibody is available for research use only.



IRDN Antibody BCPH1 Staining in Human Pancreatic Islets by IHC. Immunohistochemistry staining of FFPE human pancreas using IRDN Antibody (clone BCPH1) shows strong brown cytoplasmic labeling concentrated within a pancreatic islet, with substantially weaker staining in the surrounding exocrine tissue. HIER was performed by boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min. The localized staining pattern is consistent with insulin expression in pancreatic beta cells and demonstrates detection using this Insulin Monoclonal Antibody.

Description

IRDN Antibody BCPH1 recognizes insulin, a peptide hormone that plays a central role in glucose homeostasis and metabolic regulation. Insulin is produced primarily by pancreatic beta cells and is initially synthesized as preproinsulin. Removal of the signal peptide generates proinsulin, which undergoes proteolytic processing to produce 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 coordinate carbohydrate, lipid, and protein metabolism. Activation of insulin receptor signaling promotes glucose uptake in responsive tissues, stimulates glycogen and lipid synthesis, and regulates pathways involved in cellular growth and metabolic homeostasis. Abnormalities affecting insulin production, secretion, or signaling are central to diabetes mellitus and related metabolic disorders, making insulin an important target in endocrine and metabolism research.

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

Clone BCPH1 is a mouse monoclonal antibody generated against recombinant INS protein. This Insulin Monoclonal Antibody provides a defined reagent for investigating insulin expression and complements other antibodies used to study pancreatic beta cells, endocrine function, and insulin-producing cell populations. NSJ Bioreagents supplies clone BCPH1 for research use only.

An IRDN 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.

For a highly published insulin monoclonal with an alternate INS05 clone designation, see our Insulin Antibody 2D11-H5 / INS05 Antibody page.

Application Notes

Optimal dilution of the IRDN Antibody BCPH1 / Insulin Monoclonal Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min
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

Recombinant INS protein was used as the immunogen for the IRDN Antibody BCPH1.

Storage

Store the IRDN Antibody BCPH1 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

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