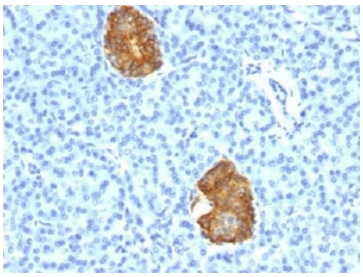
Insulin Antibody Cocktail E2-E3 + 2D11-H5 / INS04 + INS05 [clone E2-E3 + 2D11-H5 or INS04 + INS05] (V2158)

Catalog No.	Formulation	Size
V2158-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2158-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2158SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2158IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

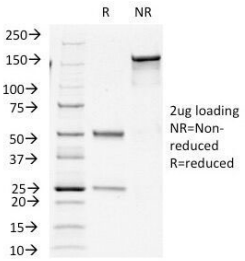
Citations (4)

Bulk quote request

Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	E2-E3 + 2D11-H5 or INS04 + INS05
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	3630
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT
Limitations	This Insulin Antibody Cocktail E2-E3 + 2D11-H5 / INS04 + INS05 is available for research use only.



Insulin Antibody Cocktail E2-E3 + 2D11-H5 Staining in Human Pancreatic Islets by IHC. Immunohistochemistry staining of human pancreas using Insulin Antibody Cocktail (clones E2-E3 + 2D11-H5, also designated INS04 + INS05) shows intense brown cytoplasmic staining sharply concentrated within pancreatic islets. The surrounding exocrine tissue is largely unstained, producing strong contrast between insulin-positive endocrine cells and adjacent pancreatic tissue. The localized staining pattern is consistent with insulin expression in pancreatic beta cells and demonstrates detection using this dual-clone Insulin Antibody Cocktail.



Insulin Antibody Cocktail E2-E3 + 2D11-H5 Purity and Integrity by SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free Insulin Antibody Cocktail (clones E2-E3 + 2D11-H5, also designated INS04 + INS05) shows distinct immunoglobulin heavy and light chains at approximately 50 kDa and 25 kDa under reducing conditions. Under non-reducing conditions, the intact antibody migrates as a prominent band at approximately 150 kDa. The expected reduced and non-reduced migration patterns support the integrity and purity of the dual-clone antibody preparation.

Description

Insulin Antibody Cocktail combines two monoclonal antibodies that recognize insulin, a peptide hormone with 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 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 increased blood glucose.

Insulin acts through the insulin receptor to regulate carbohydrate, lipid, and protein metabolism. Insulin receptor signaling promotes glucose uptake in responsive tissues, stimulates glycogen and lipid synthesis, and influences 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 localization 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.

This Insulin Antibody Cocktail combines mouse monoclonal clones E2-E3 and 2D11-H5, which are also designated INS04 and INS05, respectively. Both antibodies were generated against purified full-length porcine insulin. Combining the two monoclonal antibodies provides a dual-clone reagent for investigating insulin expression in pancreatic beta-cell and endocrine research. NSJ Bioreagents supplies the E2-E3 + 2D11-H5 antibody cocktail for research use only.

An Insulin Antibody Cocktail 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

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the Insulin Antibody Cocktail E2-E3 + 2D11-H5 / INS04 + INS05 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), clones E2-E3 and 2D11-H5, was used as the immunogen for this Insulin Antibody Cocktail E2-E3 + 2D11-H5.

Storage

Store the Insulin Antibody Cocktail E2-E3 + 2D11-H5 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

INS04 + INS05 antibody, E2-E3 + 2D11-H5 antibody, insulin beta-cell marker antibody, beta-cell marker antibody, insulinoma marker antibody, IRDN antibody, proinsulin antibody

References (2)

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