Anti- Insulin

Clone	Species	Ig Class
IRDN/1980R	Rabbit	IgG / Kappa

Catalog No.	Description
	Manual
AND80-5M	6 ml of Ready-to-Use Antibody for use with BioGenex Super Sensitive™ Detection Systems OR equivalent detection system
	Concentrated
NUD80-UC	1 ml of Concentrated Antibody for use with BioGenex Super Sensitive™ Detection Systems OR equivalent detection system
NUD80-5UC	0.5 ml of Concentrated Antibody for use with BioGenex Super Sensitive™ Detection Systems OR equivalent detection system
	Automation
AND80-10M	10 ml of Ready-to-Use Antibody in a barcode labeled vial for use with BioGenex Super Sensitive™ Detection Systems and i6000™ Automated Staining Systems
AYD80-YCD	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx Elite ® Staining System, 160 tests
AYD80-50D	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx Elite ® Staining System, 50 tests
AYD80-4M	Ready-to-Use Antibody in Barcode labeled Vial for use on the NanoVip™ Staining System, 50 tests
AYD80-10M	Ready-to-Use Antibody in Barcode labeled Vial for use on the NanoVip™ 300 Staining System, 100 tests

Recommended Detection Kits:
https://biogenex.com/ihc-detection-kits/

Antibody Incubation: 30-60 Min at RT

Control Tissue: Pancreas tissue as available with Biogenex FB-D80N* & FG-D80N*

Recommended Dilution for Concentrated Antibody:
1:50 - 100 in HK941
Recommended Pretreatment: EZ-AR2 (HK522-XAK)

Intended Use

For Research Use. This antibody is designed for the specific localization of human Insulin in formalin-fixed, paraffin- embedded (FFPE) tissue sections. Evaluation must be performed by a qualified pathologist.

Summary and Explanation

Insulin is a 5.8 kDa peptide hormone produced by pancreatic β-cells of the islets of Langerhans. It is synthesized as preproinsulin, processed to proinsulin, and finally cleaved into insulin and C-peptide. Insulin plays a central role in glucose homeostasis by promoting cellular uptake of glucose, glycogen synthesis, and lipid metabolism. Abnormalities in insulin production or signaling underlie disorders such as diabetes mellitus.In immunohistochemistry, insulin shows strong cytoplasmic staining restricted to pancreatic β-cells, making pancreatic islets a reliable positive control tissue.The IRDN/1980R rabbit polyclonal antibody is validated for use in formalin-fixed, paraffin-embedded (FFPE) tissues, supporting applications in both diagnostic pathology and research studies of pancreatic function and diabetes.

Storage and Handling

Store at 2–8°C. Fresh dilutions, if required, should be prepared prior to use and are stable and steady for up to one day at room temperature (20-26°C). Diluted antibody preparations can be refrigerated or frozen for extended shelf life.

Principles of the Procedure

IHC involves binding of a primary antibody to a target antigen, followed by visualization using a chromogenic detection system. The procedure can be manual or automated. Include appropriate positive and negative controls in each run.

Reagents Provided

Rabbit Monoclonal Antibody to human Insulin is affinity purified and diluted in PBS, pH 7.2, containing 1% BSA and 0.09% sodium azide.

Precautions

Contains <0.1% sodium azide. Follow standard safety protocols. Wear appropriate PPE, avoid skin and mucous membrane contact, and do not pipette by mouth. Dispose of reagents per regulatory guidelines. SDS available on request.

Quality Control

Refer to BioGenex Detection System documentation for guidance on quality control, including recommended positive and negative controls.

Troubleshooting

For detection-related issues, consult the BioGenex Detection System documentation. For assistance, contact BioGenex Technical Support at 1-800-421-4149 or support@biogenex.com, or reach out to your local distributor.

Expected Results

This antibody shows Cytoplasm staining in positive cells in FFPE tissues. Refer to the BioGenex website for representative images. Result interpretation is the user's responsibility and should be confirmed with established diagnostic methods.

Limitations of the Procedure

Staining results may vary due to improper tissue processing, fixation, or tissue variability. Endogenous enzymes or biotin may cause non-specific staining. HBsAg-positive tissues may yield false positives with HRP systems. Poor counterstaining or mounting can affect interpretation.

Bibliography:

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3. Brissova, M., et al. (2005). Assessment of human pancreatic islet architecture and composition by laser scanning confocal microscopy. J Histochem Cytochem, 53(9), 1087–1097.DOI: 10.1369/jhc.5C6684.2005
4. Cabrera, O., et al. (2006). The unique cytoarchitecture of human pancreatic islets has implications for islet cell function. PNAS, 103(7), 2334–2339.DOI: 10.1073/pnas.0510790103

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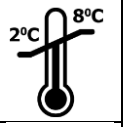
5. Bonner-Weir, S., et al. (2015). Biology of the β-cell in diabetes. Diabetes Care, 38(6), 1137–1145.DOI: 10.2337/dc15-0109

	Temperature Limitation		Research Use only
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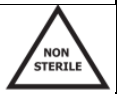	Non-Sterile		Consult Instructions for Use
	Manufacturer, BioGenex		

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