

# Novocastra™ Lyophilized Mouse Monoclonal Antibody Insulin

## Product Code: NCL-INSULIN

<b>Intended Use</b>	FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
<b>Specificity</b>	Human insulin. Also reacts with swine and bovine insulin, but not mouse or rat insulin.
<b>Clone</b>	2D11-H5
<b>Ig Class</b>	IgG1
<b>Antigen Used for Immunizations</b>	Insulin conjugated to bovine serum albumin carrier protein.
<b>Hybridoma Partner</b>	Mouse myeloma (Sp-2/0-Ag14).
<b>Preparation</b>	Lyophilized tissue culture supernatant containing sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
<b>Effective on Frozen Tissue</b>	Not evaluated.
<b>Effective on Paraffin Wax Embedded Tissue</b>	Yes.
<b>Recommendations on Use</b>	Immunohistochemistry on paraffin sections. <b>Epitope Retrieval:</b> Not recommended. <b>Suggested dilution:</b> 1:150 for 30 minutes at 25 °C. This is provided as a guide and users should determine their own optimal working dilutions. <b>Visualization:</b> Please follow the instructions for use in the Novolink™ Polymer Detection Systems. For further product information or support, contact your local distributor or regional office of Leica Biosystems, or alternatively, visit the Leica Biosystems Web site, <a href="http://www.LeicaBiosystems.com">www.LeicaBiosystems.com</a> <u>The performance of this antibody should be validated when utilized with other manual staining systems or automated platforms.</u>
<b>Positive Controls</b>	Immunohistochemistry: Pancreas.
<b>Staining Pattern</b>	Cytoplasmic.
<b>Storage and Stability</b>	Store unopened lyophilized antibody at 2-8 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 2-8 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
<b>Warnings and Precautions</b>	This reagent has been prepared from the supernatant of cell culture. As it is a biological product, reasonable care should be taken when handling it. This reagent contains sodium azide. A Material Safety Data Sheet is available upon request or available from <a href="http://www.LeicaBiosystems.com">www.LeicaBiosystems.com</a>





**B I O S Y S T E M S**

**General Overview**

Insulin is a hormone secreted by the Beta cells of the islets of Langerhans in the pancreas. It promotes the uptake of glucose, glycogen storage, formation of triglycerides and synthesis of proteins and nucleic acids. Insulin is a small protein of approximately 6 kD which consists of a 21 amino acid A chain and a 30 amino acid B chain that are held together by two interchain disulphide bonds. A third disulphide bond connects two cysteine residues in the A chain. Insulin is produced from a larger precursor. A secretion signal and the C-chain, a 31 amino acid peptide which connects the A and the B chains, are removed by post-translational proteolytic cleavages in order to produce the mature hormone.

**General References**

Ackerman's Surgical Pathology. Vol 1. Ed: Juan Rosai. Seventh Edition. Publisher: CV Mosby Company. p778.