Novocastra™ Lyophilized Mouse Monoclonal Antibody Insulin

Product Code: NCL-INSULIN

Intended Use	**For In Vitro Diagnostic Use:** This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Specificity	Human insulin. Also reacts with swine and bovine insulin, but not mouse or rat insulin.
Clone	2D11-H5
Ig Class	IgG1, kappa
Antigen Used for Immunizations	Insulin conjugated to bovine serum albumin carrier protein.
Hybridoma Partner	Mouse myeloma (Sp-2/0-Ag14).
Preparation	Lyophilized tissue culture supernatant containing 15 mM sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
Effective on Frozen Tissue	Not evaluated.
Effective on Paraffin Wax Embedded Tissue	Yes
Recommendations on Use	Immunohistochemistry: Typical working dilution 1:75–1:150. 60 minutes primary antibody incubation at 25 °C. Standard ABC technique. Western Blotting: Not evaluated.
Positive Controls	Immunohistochemistry: Pancreas; Beta cells of the islets of Langerhans.
Staining Pattern	Cytoplasmic.
Storage and Stability	Store unopened lyophilized antibody at 4 °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 4 °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.
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.

Leica Biosystems Newcastle Ltd
Balliol Business Park West
Benton Lane
Newcastle Upon Tyne NE12 8EW
United Kingdom
+44 191 215 4242

IVDUS/NCL-INSULIN/07/08