

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Bovine
<b>Specificity</b>	Detects bovine, human, and mouse insulin.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 182410
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Insulin
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

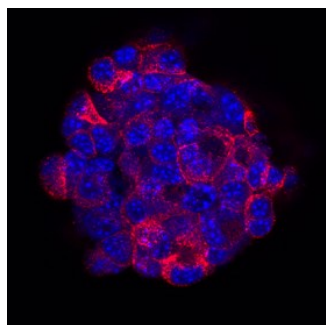
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	0.5-25 µg/mL	Immersion fixed paraffin-embedded sections of human pancreas

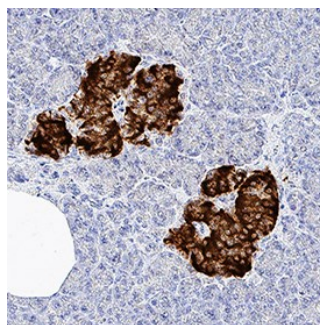
## DATA

### Immunocytochemistry



**Insulin in βTC-6 Mouse Cell Line.** Insulin was detected in immersion fixed βTC-6 mouse beta cell insulinoma cell line using Human/Mouse/Bovine Insulin Monoclonal Antibody (Catalog # MAB1417) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunohistochemistry



**Insulin in Human Pancreas.** Insulin was detected in immersion fixed paraffin-embedded sections of human pancreas using Rat Anti-Human/Mouse/Bovine Insulin Monoclonal Antibody (Catalog # MAB1417) at 0.5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC005). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and plasma membrane in islet cells. Staining was performed using our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
<b>Shipping</b>	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Insulin is a disulfide-linked heterodimeric protein secreted by the pancreatic Islets of Langerhans. Mature insulin is generated by the proteolytic removal of a peptide from proinsulin. It is involved in the regulation of glucose metabolism through interactions with the Insulin Receptor.