

Insulin Monoclonal Antibody (SPM139)

Product Specifications

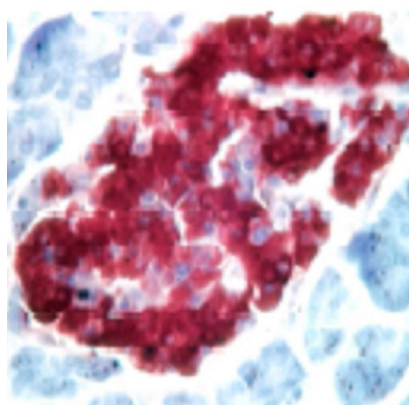
Catalog Number:	905-433
Host:	Mouse
Isotype:	IgG _{1/κ}
Species Reactivity:	Human, rat, cow, pig and rabbit (others not tested)
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	IHC: 1:100 for 10 min at RT (Formalin/paraffin) <i>No special pretreatment is required for the immunohistochemical staining of formalin/paraffin tissues.</i>
Predicted m.w:	~5.8 KDa
Concentration:	See product label
Purification:	Affinity purified
Format:	PBS, pH 7.4 with BSA and sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at 4°C
Immunogen:	Swine insulin
Related Products :	
SAB-100	Goat anti-Mouse IgG Polyclonal Antibody, AP Conjugate
CSA-720	Insulin Receptor (phospho-Tyr972) Polyclonal Antibody
905-645	Insulin Receptor (phospho-Tyr1150/1151) Monoclonal Antibody (10C3)
905-646	Insulin Receptor (phospho-Tyr1322) Monoclonal Antibody (21G12)
905-647	Insulin Receptor Monoclonal Antibody (9H4)
905-683-100	Insulin Receptor beta Monoclonal Antibody (C18C4)

Background:

Insulin represents a 51-amino acid polypeptide composed of A and B chains connected through the C-peptide. Proinsulin, which displays very little biological activity, is produced in the pancreas within the ER of beta cells of the islets of Langerhans. Proinsulin is cleaved into insulin and the C-peptide byproduct by proteases within the *trans* network of the beta cell Golgi apparatus, where it is then packaged and stored in secretory vesicles¹. Insulin enhances membrane transport of glucose, amino acids and certain ions, and also promotes glycogen storage, formation of triglycerides, and synthesis of proteins and nucleic acids. Pancreatic islets provide the main storage site for insulin. Type 1 diabetes results from the autoimmune destruction of insulin producing pancreatic beta cells, whereas type 2 diabetes is characterized by a state of insulin resistance, insulin deficiency, and hyperglycemia^{1,2}.

References:

1. Doyle, M.E. and Egan, J.M. (2003) *Pharmacol Rev.* **55**, 105-131.
2. Wajchenberg, B.L. (2007) *Endocrine Rev.* **28**, 187-218.



Human pancreas stained with Insulin Monoclonal Antibody (SPM139)

FOR RESEARCH USE ONLY; NOT FOR THERAPEUTIC OR DIAGNOSTIC USE

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