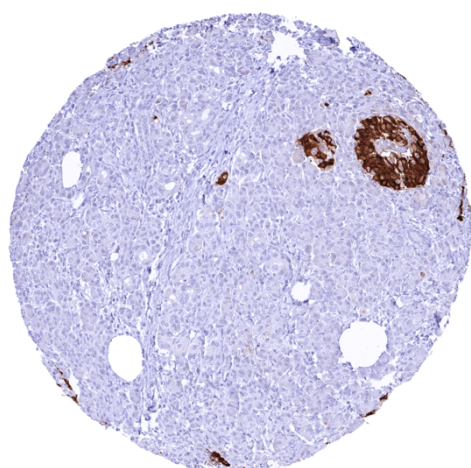


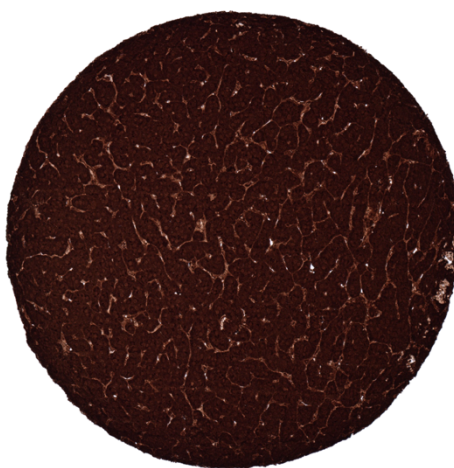
Anti- C-Peptide Antibody HMV-363 / Recombinant Rabbit monoclonal

Human SwissProt	P01308
Human Gene Symbol	INS
Synonyms	insulin , IDDM , IDDM1 , IDDM2 , ILPR , IRDN , MODY10
Specificity	C-Peptide
Immunogen	Recombinant human INS fragment
Isotype	Rabbit / IgG
Species Reactivity	Human

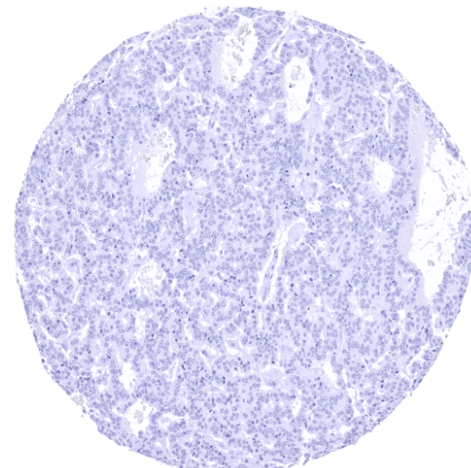
Localization	Secreted
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Pancreas: A strong C-peptide staining should be seen in a large fraction of islet cells.
Negative Control	Colon: C-peptide staining must be absent in all cell types.



Pancreas with strong cytoplasmic C-peptide staining of most islet cells



Pancreatic neuroendocrine tumor (Insulinoma) with strong C-peptide staining of all tumor cells



Pancreatic neuroendocrine tumor lacking C-peptide staining

Biology

C-peptide (connecting peptide) is a part of the proinsulin protein which is coded by the insulin gene at 11p15.5 and produced exclusively by the beta cells of the pancreatic islets. C-peptide is formed when the proinsulin is split into insulin and C-peptide. At that time equimolar quantities of insulin and C-peptide are released to the blood. C-peptide binds to the surface of several cell types (neuronal, endothelial, fibroblast and renal tubular) and can activate specific pathways. The clinical significance of C-peptide lies in its serological measurement as a parameter for endogenous insulin production (not influenced by exogenous insulin). Among cancers, C-peptide expression is largely limited to insulinoma, an insulin producing neuroendocrine tumor of the pancreas. Extra-pancreatic insulinomas can occur but they are very rare.

Potential Research Applications

To what extent ectopic production of C-peptide can occur in cancer has not been analyzed.

Protocol Suggestions

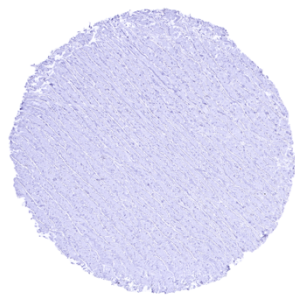
Dilution: 1:150. pH 7,8 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

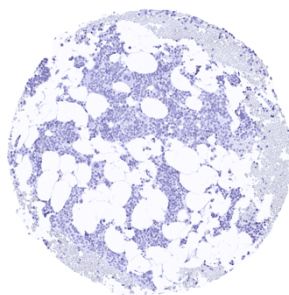
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

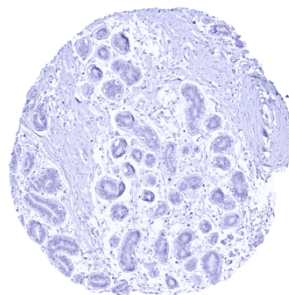
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



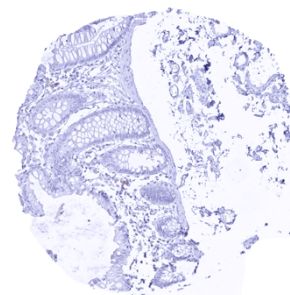
Aorta, media



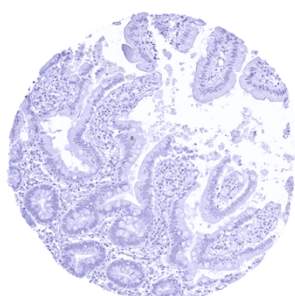
Bone marrow



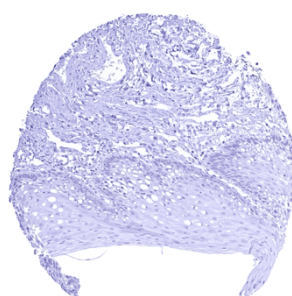
Breast



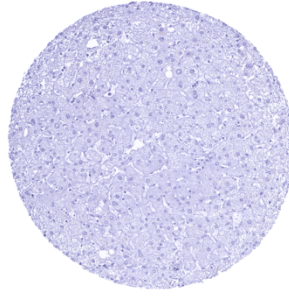
Colon descendens, mucosa



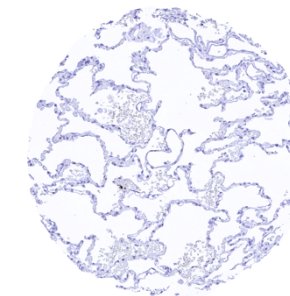
Duodenum, mucosa



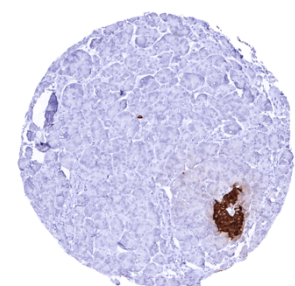
Esophagus, squamous epithelium



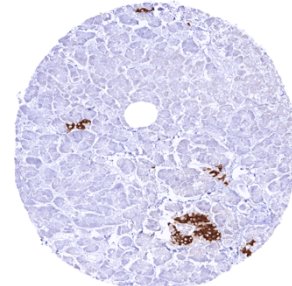
Liver



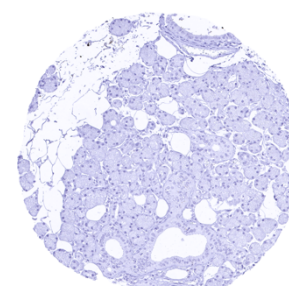
Lung



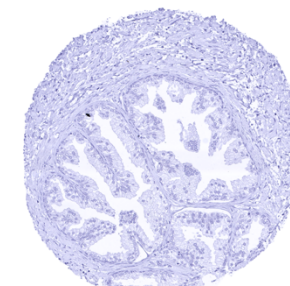
Pancreas – Intense cytoplasmic C-peptide staining of most islet cells. Faint staining of acinar cells in the immediate vicinity of pancreatic islets represents a „contamination artifact“ caused by diffusion of C-peptide into „islet-adjacent“ tissue



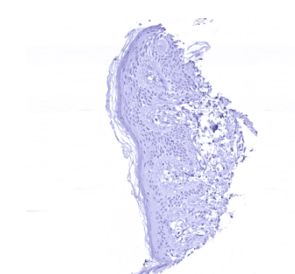
Pancreas – Strong cytoplasmic C-peptide positivity of the majority of islet cells



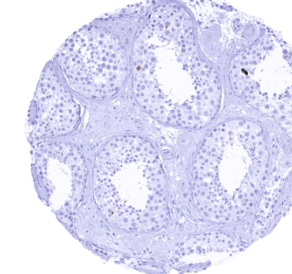
Parotid gland



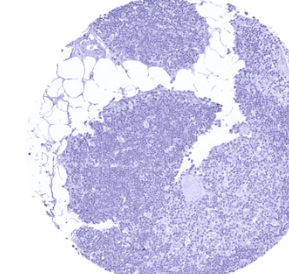
Prostate



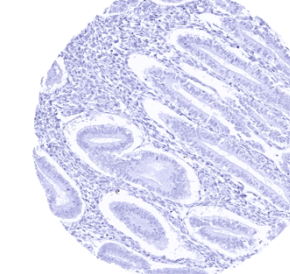
Skin



Testis



Thymus



Uterus, endometrium (secretion)