Anti-Pancreatic Polypeptide Antibody [PSH0-84] - BSA and Azide free

HA750664

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-P, IHC-Fr, IF-Tissue
Molecular Wt:	Predicted band size: 10 kDa
Clone number:	PSH0-84

Description: Pancreatic polypeptide (PP) is a polypeptide secreted by PP cells in the endocrine pancreas. It regulates pancreatic secretion activities, and also impacts liver glycogen storage and gastrointestinal secretion. Its secretion may be impacted by certain endocrine tumours. The PPY gene encodes an unusually short protein precursor. This precursor is cleaved to produce pancreatic polypeptide, pancreatic icosapeptide, and a 5- to 7- amino-acid oligopeptide. Pancreatic polypeptide regulates pancreatic secretion activities by both endocrine and exocrine tissues. It also affects hepatic glycogen levels and gastrointestinal secretions. Its secretion in humans is increased after a protein meal, fasting, exercise, and acute hypoglycaemia, and is decreased by somatostatin and intravenous glucose. Plasma pancreatic polypeptide has been shown to be reduced in conditions associated with increased food intake and elevated in anorexia nervosa. In addition, peripheral administration of polypeptide has been shown to decrease food intake in rodents. Pancreatic polypeptide inhibits pancreatic secretion of fluid, bicarbonate, and digestive enzymes. It also stimulates gastric acid secretion. It is the antagonist of cholecystokinin and opposes pancreatic secretion stimulated by cholecystokinin. It may stimulate the migrating motor complex, synergistic with motilin. On fasting, pancreatic polypeptide concentration is 80 pg/ml; after the meal, it rises up from 8 to 10 times more; glucose and fats also induce PP's level increase, but on parenteral introduction of those substances, the level of hormones doesn't change. The administration of atropine, the vagotomy, blocks pancreatic polypeptide secretion after meals. The excitation of the vagus nerve, the administration of gastrin, secretin or cholecystokinin induce PP secretion.

Immunogen:	Recombinant protein within human PPY aa 30-95.
Positive control:	Mouse pancreas tissue, rat pancreas tissue.
Subcellular location:	Secreted.
Database links:	SwissProt: P01298 Human | P10601 Mouse | P06303 Rat
Recommended Dilutions:	
IHC-P	1:1,000
IHC-Fr	1:500
IF-Tissue	1:50
Storage Buffer:	PBS (pH7.4).
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

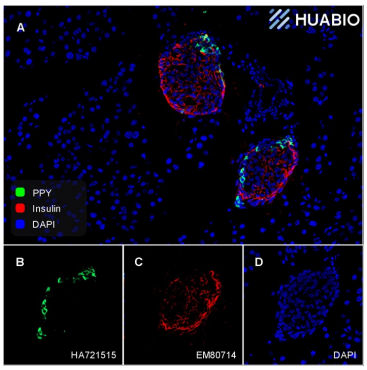

Fig1: Immunofluorescence analysis of frozen mouse pancreas tissue with Rabbit anti-Pancreatic Polypeptide antibody (HA750664) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA750664, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

Insulin (EM80714, red) was stained at 1/500 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

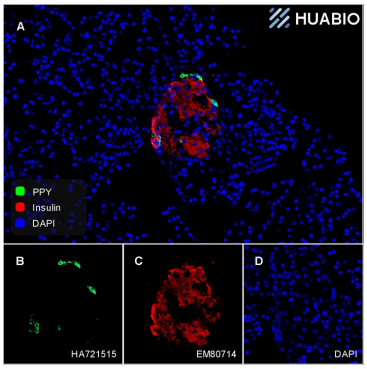

Fig2: Immunofluorescence analysis of frozen rat pancreas tissue with Rabbit anti-Pancreatic Polypeptide antibody (HA750664) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA750664, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

Insulin (EM80714, red) was stained at 1/500 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

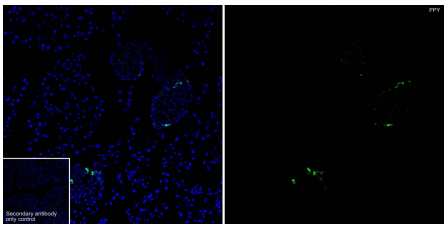

Fig3: Immunofluorescence analysis of frozen mouse pancreas tissue with Rabbit anti-Pancreatic Polypeptide antibody (HA750664) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA750664, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

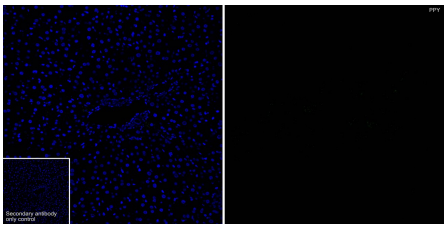

Fig4: Immunofluorescence analysis of frozen mouse liver tissue (negative) with Rabbit anti-Pancreatic Polypeptide antibody (HA750664) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA750664, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

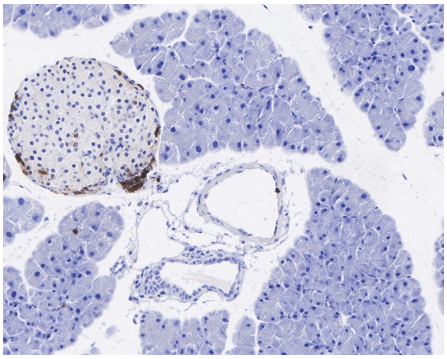

Fig5: Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue with Rabbit anti-Pancreatic Polypeptide antibody (HA750664) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750664) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

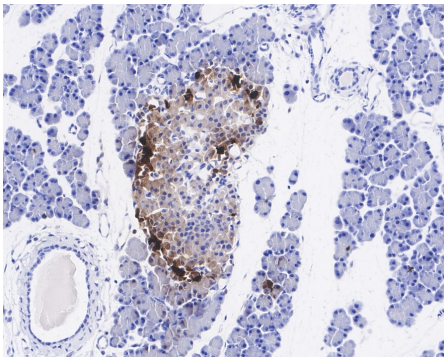

Fig6: Immunohistochemical analysis of paraffin-embedded rat pancreas tissue with Rabbit anti-Pancreatic Polypeptide antibody (HA750664) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750664) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Zhu W et al. Pancreatic polypeptide revisited: Potential therapeutic effects in obesity-diabetes. Peptides. 2023 Feb
2. Schaper SJ et al. Pancreatic Polypeptide but Not Other Members of the Neuropeptide Y Family Shows a Moderate Association With Perceived Anxiety in Obese Men. Front Hum Neurosci. 2020 Oct