

Pancreatic Polypeptide (030-06-1): sc-80494

BACKGROUND

Pancreatic Polypeptide (PP) and Pancreatic Icosapeptide (PI) are both deduced from the pancreatic prohormone precursor. The two peptide sequences are separated by a Gly-Lys-Arg cleavage and amidation site. The Pancreatic Polypeptide lies on the N-terminal side of this cleavage site while the Pancreatic Icosapeptide lies on the C-terminal side. The prohormone precursor is produced by the endocrine F cells of the pancreatic islets and, in response to food intake, the Pancreatic Polypeptide is released into the circulation. The Pancreatic Polypeptide is a member of the neuropeptide Y (NPY) family of hormones that bind to Y receptors. In particular, it binds to Y4 receptors and functions as an anorexigenic hormone. Subjects with Prader-Willi syndrome have a decreased Pancreatic Polypeptide response to a meal. Administration of Pancreatic Polypeptide decreases food intake and may serve as a therapeutic option for treatment of obesity.

REFERENCES

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- Schwartz, T.W., et al. 1984. Human Pancreatic Icosapeptide: isolation, sequence, and immunocytochemical localization of the COOH-terminal fragment of the Pancreatic Polypeptide precursor. *Proc. Natl. Acad. Sci. USA* 81: 708-712.
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- Koska, J., et al. 2004. Pancreatic Polypeptide is involved in the regulation of body weight in Pima Indian male subjects. *Diabetes* 53: 3091-3096.
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- Kapran, Y., et al. 2006. Multihormonality and entrapment of islets in pancreatic endocrine tumors. *Virchows Arch.* 448: 394-398.
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STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: PPY (human) mapping to 17q21.31.

SOURCE

Pancreatic Polypeptide (030-06-1) is a mouse monoclonal antibody raised against Pancreatic Polypeptide of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Pancreatic Polypeptide (030-06-1) is recommended for detection of Pancreatic Polypeptide of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Peptide YY or NPY.

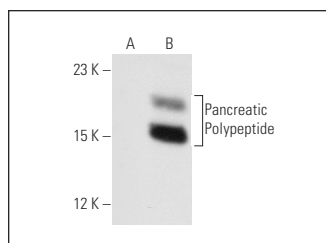
Suitable for use as control antibody for Pancreatic Polypeptide siRNA (h): sc-62749, Pancreatic Polypeptide shRNA Plasmid (h): sc-62749-SH and Pancreatic Polypeptide shRNA (h) Lentiviral Particles: sc-62749-V.

Molecular Weight of Pancreatic Polypeptide precursor: 12 kDa.

Molecular Weight of Pancreatic Polypeptide polypeptide: 4 kDa.

Positive Controls: Pancreatic Polypeptide (h): 293T Lysate: sc-159782.

DATA



Pancreatic Polypeptide (030-06-1): sc-80494. Western blot analysis of Pancreatic Polypeptide expression in non-transfected: sc-117752 (A) and human Pancreatic Polypeptide transfected: sc-159782 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.