SANTA CRUZ BIOTECHNOLOGY, INC.

Pancreatic Polypeptide (B-2): sc-514155

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pancreatic Polypeptide (PP) and Pancreatic Icosapeptide (PI) are both deduced from the pancreatic prohormone precursor. The two peptide sequences are seperated 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.

CHROMOSOMAL LOCATION

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

SOURCE

Pancreatic Polypeptide (B-2) is a mouse monoclonal antibody raised against amino acids 1-95 representing full length pancreatic prohormone precursor of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Pancreatic Polypeptide (B-2) is available conjugated to agarose (sc-514155 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514155 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514155 PE), fluorescein (sc-514155 FITC), Alexa Fluor® 488 (sc-514155 AF488), Alexa Fluor® 546 (sc-514155 AF546), Alexa Fluor® 594 (sc-514155 AF594) or Alexa Fluor® 647 (sc-514155 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514155 AF680) or Alexa Fluor® 790 (sc-514155 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Pancreatic Polypeptide (B-2) is recommended for detection of Pancreatic Polypeptide and Pancreatic Prohormone Precursor of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

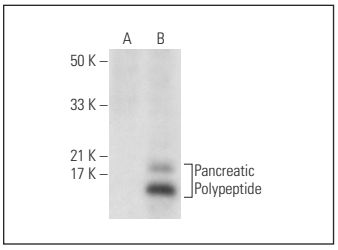
Molecular Weight of Pancreatic Polypeptide: 4 kDa.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Pancreatic Polypeptide (B-2): sc-514155. 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.

SELECT PRODUCT CITATIONS

1. Westermeier, F., et al. 2020. Cytosolic phosphoenolpyruvate carboxykinase is expressed in α-cells from human and murine pancreas. J. Cell. Physiol. 235: 166-175.
2. Kowalska, M., et al. 2021. Architecture of the pancreatic islets and endocrine cell arrangement in the embryonic pancreas of the grass snake *(Natrix natrix L.).* Immunocytochemical studies and 3D reconstructions. Int. J. Mol. Sci. 22: 7601.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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