SANTA CRUZ BIOTECHNOLOGY, INC.

PTP IA-2β (M-17): sc-30339

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Protein-Tyrosine Phosphatase Receptor-Type IA-2β (PTP IA-2β), alternately known as PTPRN2 or Phogrin, localizes in dense-core secretory vesicles of pancreas islet cells and influences Insulin secretion. The PTP IA-2β precursor is an autoantigen that contributes to Insulin-dependent diabetes mellitus (IDDM). The autoantigenic epitopes of PTP IA-2β appear within the cytoplasmic domain of this transmembrane protein. PTP IA-2β is present at high levels in brain and pancreas with lower levels in trachea, prostate, stomach and spinal cord. The human PTPRN2 gene maps to chromosome 7q36.3. Northern blot analysis showed that PTPRN2 was expressed as 5.5- and 3.7-kb transcripts primarily in human brain and pancreas. Three alternative transcript splice variants of this gene encode distinct proteins.

CHROMOSOMAL LOCATION

Genetic locus: PTPRN2 (human) mapping to 7q36.3; Ptprn2 (mouse) mapping to 12 F2.

SOURCE

PTP IA-2β (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of PTP IA-2β of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30339 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PTP IA-2β (M-17) is recommended for detection of PTP IA-2β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PTP IA-2β (M-17) is also recommended for detection of PTP IA-2β in additional species, including equine and canine.

Suitable for use as control antibody for PTP IA-2β siRNA (h): sc-106910, PTP IA-2β siRNA (m): sc-155949, PTP IA-2β shRNA Plasmid (h): sc-106910-SH, PTP IA-2β shRNA Plasmid (m): sc-155949-SH, PTP IA-2β shRNA (h) Lentiviral Particles: sc-106910-V and PTP IA-2β shRNA (m) Lentiviral Particles: sc-155949-V.

Molecular Weight of PTP IA-2β precursor: 135 kDa.

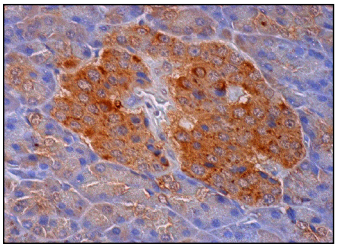
Molecular Weight of mature PTP IA-2β: 60/64 kDa.

Positive Controls: C6 whole cell lysate: sc-364373.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PTP IA-2β (M-17): sc-30339. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

RESEARCH USE

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

PROTOCOLS

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