



PTP IA-2 β Polyclonal Antibody

Catalog No	YP-Ab-14964
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;ELISA;IHC
Gene Name	PTPRN2
Protein Name	Receptor-type tyrosine-protein phosphatase N2
Immunogen	The antiserum was produced against synthesized peptide derived from human PTPRN2. AA range:206-255
Specificity	PTP IA-2 β Polyclonal Antibody detects endogenous levels of PTP IA-2 β protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	PTPRN2; KIAA0387; Receptor-type tyrosine-protein phosphatase N2; R-PTP-N2; Islet cell autoantigen-related protein; IAR; ICAAR; Phogrin
Observed Band	111kD
Cell Pathway	Cytoplasmic vesicle, secretory vesicle membrane ; Single-pass type I membrane protein . Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane ; Single-pass type I membrane protein . Predominantly found on dense-core secretory granules. Sorting to secretory granules in part is dependent of the N-terminal propeptide domain of the precursor and its interaction with CPE (By similarity). Transiently found at the cell membrane, when secretory vesicles fuse with the cell membrane to release their cargo. Is then endocytosed and recycled to secretory vesicles involving clathrin-dependent AP2-mediated endocytosis. Recycled via STX6- but not TTTGN1/TGN38-containing compartments (By similarity). .; [IA-2beta60]: Cytoplasmic vesicle, secretory vesicle membrane .
Tissue Specificity	Highest levels in brain and pancreas (PubMed:8954911, PubMed:8798755). Lower levels in trachea, prostate, stomach and spinal cord (PubMed:8798755).
Function	catalytic activity:Protein tyrosine phosphate + H(2)O = protein tyrosine + phosphate.,disease:Autoantigen in insulin-dependent diabetes mellitus (IDDM).,domain:The cytoplasmic domain appears to contain the autoantigenic epitopes.,function:Implicated in development of nervous system and pancreatic endocrine cells.,PTM:Appears to undergo multiple proteolytic cleavage at consecutive basic residues.,similarity:Belongs to the protein-tyrosine



phosphatase family. Receptor class 8 subfamily.,similarity:Contains 1 tyrosine-protein phosphatase domain.,tissue specificity:Highest levels in brain and pancreas. Lower levels in trachea, prostate, stomach and spinal chord.,

Background

This gene encodes a protein with sequence similarity to receptor-like protein tyrosine phosphatases. However, tyrosine phosphatase activity has not been experimentally validated for this protein. Studies of the rat ortholog suggest that the encoded protein may instead function as a phosphatidylinositol phosphatase with the ability to dephosphorylate phosphatidylinositol 3-phosphate and phosphatidylinositol 4,5-diphosphate, and this function may be involved in the regulation of insulin secretion. This protein has been identified as an autoantigen in insulin-dependent diabetes mellitus. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2015],

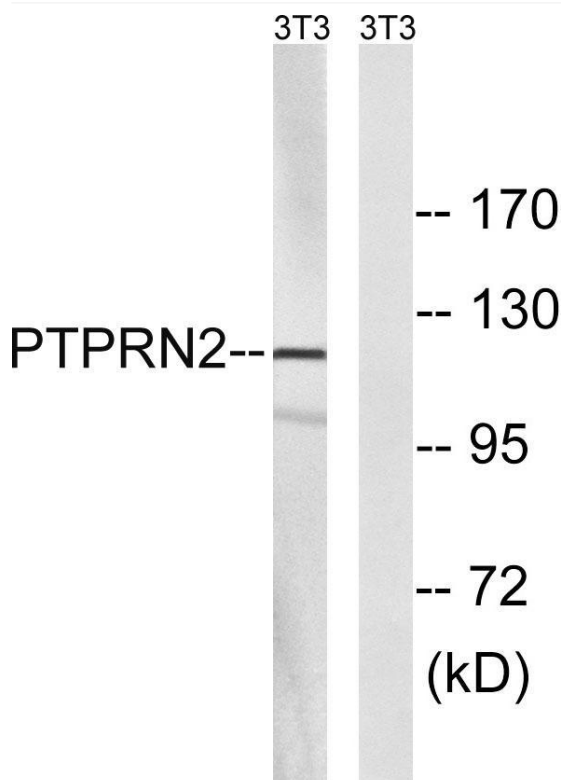
matters needing attention

Avoid repeated freezing and thawing!

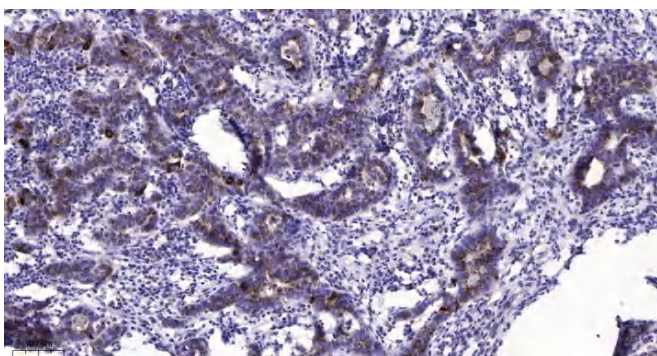
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western blot analysis of lysates from NIH/3T3 cells, using PTPRN2 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human Breast cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).