

PTPRN Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14523c

Specification

PTPRN Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O16849
Other Accession	NP_002837.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	105848
Antigen Region	288-316

PTPRN Antibody (Center) - Additional Information

Gene ID 5798

Other Names

Receptor-type tyrosine-protein phosphatase-like N, R-PTP-N, Islet cell antigen 512, ICA 512, Islet cell autoantigen 3, PTP IA-2, PTPRN, ICA3, ICA512

Target/Specificity

This PTPRN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 288-316 amino acids from the Central region of human PTPRN.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PTPRN Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

PTPRN Antibody (Center) - Protein Information

Name PTPRN

Synonyms ICA3, ICA512

Function Plays a role in vesicle-mediated secretory processes (PubMed:[24843546](#)). Required for normal accumulation of secretory vesicles in hippocampus, pituitary and pancreatic islets (By similarity). Required for the accumulation of normal levels of insulin- containing vesicles and preventing their degradation (PubMed:[24843546](#)). Plays a role in insulin secretion in response to glucose stimuli (PubMed:[24843546](#)). Required for normal accumulation of the neurotransmitters norepinephrine, dopamine and serotonin in the brain (By similarity). In females, but not in males, required for normal accumulation and secretion of pituitary hormones, such as luteinizing hormone (LH) and follicle-stimulating hormone (FSH) (By similarity). Required to maintain normal levels of renin expression and renin release (By similarity). Seems to lack intrinsic enzyme activity (By similarity). May regulate catalytic active protein-tyrosine phosphatases such as PTPRA through dimerization (By similarity).

Cellular Location

Membrane {ECO:0000250|UniProtKB:Q63259}; Single- pass type I membrane protein {ECO:0000250|UniProtKB:Q63259} Cytoplasmic vesicle, secretory vesicle membrane; Single-pass type I membrane protein. Perikaryon {ECO:0000250|UniProtKB:Q63259}. Cell projection, axon {ECO:0000250|UniProtKB:Q63259}. Synapse {ECO:0000250|UniProtKB:Q63259}. Cell membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q63259}. Endosome {ECO:0000250|UniProtKB:Q63259}. Note=Detected on neuronal secretory vesicles, but not on synaptic vesicles. Colocalizes with insulin- containing secretory granules (PubMed:25561468). Primarily detected on secretory vesicle membranes. 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 via the Golgi apparatus membranes. {ECO:0000250|UniProtKB:Q63259, ECO:0000269|PubMed:25561468} [ICA512-cleaved cytosolic fragment]: Nucleus

Tissue Location

Expression is restricted to neuroendocrine cells. Found in pancreas, brain and pituitary.

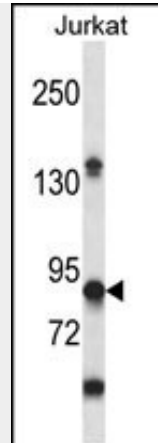
PTPRN Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PTPRN Antibody (Center) - Images





PTPRN Antibody (Center) (Cat. #AP14523c) western blot analysis in Jurkat cell line lysates (35ug/lane). This demonstrates the PTPRN antibody detected the PTPRN protein (arrow).

PTPRN Antibody (Center) - Background

The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP possesses an extracellular region, a single transmembrane region, and a single catalytic domain, and thus represents a receptor-type PTP. This PTP was found to be an autoantigen that is reactive with insulin-dependent diabetes mellitus (IDDM) patient sera, and thus may be a potential target of autoimmunity in diabetes mellitus.

PTPRN Antibody (Center) - References

Yu, L., et al. J. Immunol. Methods 353 (1-2), 20-23 (2010) :
Honeyman, M.C., et al. J. Immunol. 184(4):2204-2210(2010)
Weenink, S.M., et al. J. Autoimmun. 33(2):147-154(2009)
Burbelo, P.D., et al. Diabetes Care 31(9):1824-1826(2008)
Williams, A.J., et al. Diabetologia 51(8):1444-1448(2008)

PTPRN Antibody (Center) - Citations

- [Small cell lung cancer growth is inhibited by miR-342 through its effect of the target gene IA-2.](#)