

Rabbit anti-Human, Mouse PTP IA-2beta Polyclonal Antibody | anti-PTPRN2 antibody

PTP IA-2beta Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322602	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

PTP IA-2beta; Polyclonal Antibody; PTP IA-2beta Antibody; IA 2beta; IA2beta; IAR; IAR/receptor like protein tyrosine phosphatase; ICAAR; Islet cell autoantigen related protein; Islet cell autoantigen-related protein; Phogrin; Protein tyrosine phosphatase receptor pi; Protein tyrosine phosphatase; receptor type; N polypeptide 2; PTPR2_HUMAN; Ptpn2; PTPRP; R PTP N2; R-PTP-N2; Receptor-type tyrosine-protein phosphatase N2; Tyrosine phosphatase IA 2 beta; anti-PTPRN2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	PTP IA-2beta antibody detects endogenous levels of total PTP IA-2beta
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	977
Applicable Applications for anti-PTPRN2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PTP IA-2beta
Subcellular Location	Membrane.
Tissue Specificity	Highest levels in brain and pancreas (PubMed:8954911, PubMed:8798755). Lower levels in trachea, prostate, stomach and spinal chord (PubMed:8798755).
Predicted Cross Reactivity	Pig, Dog
Similarity	Pig (80%), Dog (91%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA322602 staining NIH-3T3 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of PTP IA-2beta using NIH-3T3 whole cell lysates

ADDITIONAL INFORMATION

Related Product Information for anti-PTPRN2 antibody

Function: Plays a role in vesicle-mediated secretory processes. Required for normal accumulation of secretory vesicles in hippocampus, pituitary and pancreatic islets. Required for the accumulation of normal levels of insulin-containing vesicles and preventing their degradation. Plays a role in insulin secretion in response to glucose stimuli. Required for normal accumulation of the neurotransmitters norepinephrine, dopamine and serotonin in the brain. 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). May regulate catalytic active protein-tyrosine phosphatases such as PTPRA through dimerization (By similarity). Has phosphatidylinositol phosphatase activity; the PIPase activity is involved in its ability to regulate insulin secretion. Can dephosphorylate phosphatidylinositol 4, 5-biphosphate (PI(4, 5)P2), phosphatidylinositol 5-phosphate and phosphatidylinositol 3-phosphate (By similarity). Regulates PI(4, 5)P2 level in the plasma membrane and localization of cofilin at the plasma membrane and thus is indirectly involved in regulation of actin dynamics related to cell migration and metastasis; upon hydrolyzation of PI(4, 5)P2 cofilin is released from the plasma membrane and acts in the cytoplasm in severing F-actin filaments (PubMed:26620550). Subunit Structure: Self-associates. Interacts (via cytoplasmic domain) with PTPRN (via cytoplasmic domain). Interacts (precursor form) with CPE. Interacts with HAP1. Interacts with AP2A1 or AP2A2 and AP1G1; indicative for an association with adaptor protein complex 2 (AP-2) and adaptor protein complex 1 (AP-1) (By similarity). Interacts with AP2M1; indicative for an association with adaptor protein complex 2 (AP-2). Interacts with MYO5A (By similarity). Post-translational Modifications: Subject to proteolytic cleavage at multiple sites. Similarity: The cytoplasmic domain appears to contain the autoantigenic epitopes.The leucine-based sorting signal is proposed to function in trafficking at the plasma membrane.The tyrosine-based internalization signal is proposed to function at the level of clathrin-mediated endocytosis and recycling. Belongs to the protein-tyrosine phosphatase family. Receptor class 8 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	815891243
NCBI GeneID	5799
NCBI Accession #	NP_001295196.1
NCBI GenBank Nucleotide #	NM_001308267.1
UniProt Accession #	Q92932; Q8N4I5; Q92662; Q9Y4F8; Q9Y4I6; E9PC57
Molecular Weight	Observed: 111 kDa Predicted: 112 kDa
NCBI Official Full Name	receptor-type tyrosine-protein phosphatase N2 isoform 4
NCBI Official Synonym Full Names	protein tyrosine phosphatase, receptor type N2
NCBI Official Symbol	PTPRN2
NCBI Official Synonym Symbols	IAR; ICAAR; PTPRP; IA-2beta; R-PTP-N2
NCBI Protein Information	receptor-type tyrosine-protein phosphatase N2
UniProt Protein Name	Receptor-type tyrosine-protein phosphatase N2

UniProt Gene Name	PTPRN2
UniProt Synonym Gene Names	KIAA0387; IAR1 PublicationManual assertion based on opinion iniRef.3; ICAAR1 PublicationManual assertion based on opinion iniRef.2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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