

## PTPRN2 / Phogrin Antibody (aa206-255)

Rabbit Polyclonal Antibody Catalog # ALS16546

## **Specification**

## PTPRN2 / Phogrin Antibody (aa206-255) - Product Information

Application
Primary Accession
Other Accession
Reactivity

Host Clonality Isotype

Calculated MW Dilution

WB, IHC-P, E 092932 5799

Human, Mouse, Rat

Rabbit Polyclonal IgG

111271 WB~~1:1000 IHC-P~~N/A E~~N/A

# PTPRN2 / Phogrin Antibody (aa206-255) - Additional Information

### **Gene ID 5799**

## **Other Names**

PTPRN2, ICAAR, Ia-2 beta, IA-2beta, PTPRP, R-PTP-N2, Phogrin, Ptp-np, IAR, KIAA0387, PTP NE-6, Tyrosine phosphatase IA-2 beta

### Target/Specificity

PTPRN2 Antibody detects endogenous levels of total PTPRN2 protein.

#### **Reconstitution & Storage**

PBS (without Mg2+, Ca2+), pH 7.4, 150 mM sodium chloride, 0.02% sodium azide, 50% glycerol. Store at -20°C for up to one year.

## **Precautions**

PTPRN2 / Phogrin Antibody (aa206-255) is for research use only and not for use in diagnostic or therapeutic procedures.

## PTPRN2 / Phogrin Antibody (aa206-255) - Protein Information

## Name PTPRN2

# **Synonyms** KIAA0387

#### **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 hydrolysis of PI(4,5)P2 cofilin is released from the plasma membrane and acts in the cytoplasm in severing F-actin filaments (PubMed:<a

href="http://www.uniprot.org/citations/26620550" target="\_blank">26620550</a>).

#### **Cellular Location**

Cytoplasmic vesicle, secretory vesicle membrane {ECO:0000250|UniProtKB:P80560}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P80560}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:P80560}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P80560} Note=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). {ECO:0000250|UniProtKB:P80560, ECO:0000250|UniProtKB:Q63475}

#### **Tissue Location**

Highest levels in brain and pancreas (PubMed:8798755, PubMed:8954911). Lower levels in trachea, prostate, stomach and spinal cord (PubMed:8798755).

Volume 50 µl

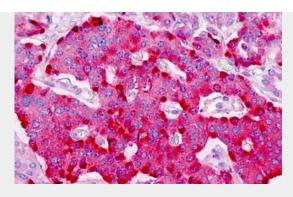
## PTPRN2 / Phogrin Antibody (aa206-255) - Protocols

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

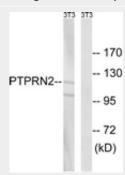
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# PTPRN2 / Phogrin Antibody (aa206-255) - Images





Anti-PTPRN2 / Phogrin antibody IHC staining of human pancreas, islet.



Western blot of extracts from NIH-3T3 cells, using PTPRN2 Antibody.

# PTPRN2 / Phogrin Antibody (aa206-255) - Background

Implicated in development of nervous system and pancreatic endocrine cells.

# PTPRN2 / Phogrin Antibody (aa206-255) - References

Kawasaki E.,et al.Biochem. Biophys. Res. Commun. 227:440-447(1996). Smith P.D.,et al.Biochem. Biophys. Res. Commun. 229:402-411(1996). Cui L.,et al.J. Biol. Chem. 271:24817-24823(1996). Jiang S.,et al.Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases. Nagase T.,et al.DNA Res. 4:141-150(1997).