# PITP $\alpha/\beta$ (N-20): sc-20284



The Power to Question

## **BACKGROUND**

The lipid binding proteins known as phosphatidylinositol transfer proteins (PITP) facilitate the formation of phosphatidylinositol derived second messenger molecules, which are related to the phospholipase C and phosphoinositide 3-kinase pathways. PITP are ubiquitously expressed proteins that transfer phosphatidylinositol (PI) and phosphatidylcholine (PC) between membranes enriched in PI or PC to membranes that are deficient in PI or PC. PITP mobilizes PI from the endoplasmic recticulum and regulates the release of PI from stored vesicles in the Golgi network. In mammalian cells, three smaller forms of soluble PITP are present, designated PITP  $\alpha$ ,  $\beta$  and retinal degeneration B (rdgB)  $\beta$ . The gene encoding human rdgB  $\beta$  maps to chromosome 11q13, a region that contains several retinopathy loci, which makes the HrdgB  $\beta$  gene a candidate for several inherited retinal degenerative diseases.

## **REFERENCES**

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- Monaco, M.E., et al. 1998. Evidence that mammalian phosphatidylinositol transfer protein regulates phosphatidylcholine metabolism. Biochem. J. 335: 175-179.
- Aikawa, Y., et al. 1999. Involvement of PITPnm, a mammalian homologue of *Drosophila* rdgB, in phosphoinositide synthesis on Golgi membranes.
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- Fullwood, Y., dos Santos, M., and Hsuan, J.J. 1999. Cloning and characterization of a novel human phosphatidylinositol transfer protein, rdgB beta. J. Biol. Chem. 274: 31553-31558.
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- Cockcroft, S. 2001. Phosphatidylinositol transfer proteins couple lipid transport to phosphoinositide synthesis. Semin. Cell Dev. Biol. 12: 183-191.

## SOURCE

 $PITP\alpha/\beta \ (N-20) \ is \ an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PITP\alpha of human origin.$ 

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-20284 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **RESEARCH USE**

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

#### **APPLICATIONS**

PITP $\alpha/\beta$ PITP $\alpha/\beta$  (N-20) is recommended for detection of PITP $\alpha/\beta$  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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of PITP $\alpha/\beta$ : 35 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

## **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.

#### STORAGE

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

## **PROTOCOLS**

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

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