

## Technical Data Sheet

## Purified Mouse Anti-PITPnm

## Product Information

Material Number:	612026
Alternate Name:	Phosphatidylinositol transfer protein; Nir2; MrdgBa
Size:	50 µg
Concentration:	250 µg/ml
Clone:	8/PITPNM
Immunogen:	Mouse PITPnm
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse
Target MW:	170 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

## Description

PITPs (phosphatidylinositol transfer protein) are abundant cytosolic or transmembrane proteins that are required for phospholipase C (PLC) signaling and vesicular trafficking. All of the mammalian PITPs are homologous to *Drosophila* retinal degeneration B (rdgB) proteins, which are PITPs that are involved in retinal and olfactory neurosensory signaling, and mutations in these proteins lead to retinal degeneration. There are at least 5 mammalian PITPs, three cytosolic PITPs, PITP $\alpha$ , PITP $\beta$ , and MrdgB $\beta$ , and two transmembrane PITPs: PITPnm (Nir2/MrdgBa) and Nir3. PITP $\alpha$  and  $\beta$  participate in PLC signaling, mediated by the ability of PITP to deliver PI to the signaling complex containing PI4-Kinase, PIP-5-Kinase, and the activated receptor. PITPnm contains an N-terminal PITP domain adjacent to a Ca<sup>2+</sup>-binding domain (CBD), and a C-terminal PYK2 binding domain. PITPnm mRNA is widely expressed with the highest expression in brain, and PITPnm protein is found in the ER and Golgi. Thus, PITPnm may be important for phosphoinositide synthesis in the Golgi, and may interact with PYK2 during activation of PI-4 signaling pathways.



*Western blot analysis of PITPnm on a rat cerebrum lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-PITPnm antibody.*

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

## Application Notes

## Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

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### Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

### References

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- Aikawa Y, Kuraoka A, Kondo H, Kawabuchi M, Watanabe T. Involvement of PIPNm, a mammalian homologue of Drosophila rdgB, in phosphoinositide synthesis on Golgi membranes. *J Biol Chem.* 1999; 274(29):20569-20577.(Biology)
- Fullwood Y, dos Santos M, Hsuan JJ. Cloning and characterization of a novel human phosphatidylinositol transfer protein, rdgBbeta. *J Biol Chem.* 1999; 274(44):31553-31558.(Biology)
- Lev S, Hernandez J, Martinez R, Chen A, Plowman G, Schlessinger J. Identification of a novel family of targets of PYK2 related to Drosophila retinal degeneration B (rdgB) protein. *Mol Cell Biol.* 1999; 19(3):2278-2288.(Biology)