

Nir3 (C-18): sc-69195

BACKGROUND

The Nirs (Nir1, Nir2, and Nir3), human homologues of *Drosophila* retinal degeneration B (rdgB), have been considered candidate genes for human inherited retinal degeneration diseases. The three Nir proteins are highly expressed in the developing retina, each exhibiting a distinct distribution profile. Nir3 (phosphatidylinositol transfer protein, membrane-associated 2), also known as membrane-associated phosphatidylinositol transfer protein 2, PYK2 N-terminal domain-interacting receptor 3, PITPNM2, RDGB2, RDGBA2 or KIAA1457, is a 1,349 amino acid protein that catalyzes the transfer of phosphatidylinositol and phosphatidylcholine between membranes. Nir3 is highly expressed in thymus, heart, ovary, testis and brain, and is expressed at lower levels in prostate, pancreas, small intestine, skeletal muscle, liver, placenta and colon. Three Nir3 isoforms exist as a result of alternative splicing, and Nir3 contains one DDHD domain. The gene encoding Nir3 maps to human chromosome 12q24.31.

REFERENCES

1. Lev, S., Hernandez, J., Martinez, R., Chen, A., Plowman, G. and Schlessinger, J. 1999. Identification of a novel family of targets of PYK2 related to *Drosophila* retinal degeneration B (rdgB) protein. *Mol. Cell. Biol.* 19: 2278-2288.
2. Nagase, T., Kikuno, R., Ishikawa, K., Hirose, M. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XVII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 143-150.
3. Ocaka, L., Spalluto, C., Wilson, D.I., Hunt, D.M. and Halford, S. 2005. Chromosomal localization, genomic organization and evolution of the genes encoding human phosphatidylinositol transfer protein membrane-associated (PITPNM) 1, 2 and 3. *Cytogenet. Genome Res.* 108: 293-302.
4. Amarilio, R., Ramachandran, S., Sabanay, H. and Lev, S. 2005. Differential regulation of endoplasmic reticulum structure through VAP-Nir protein interaction. *J. Biol. Chem.* 280: 5934-5944.
5. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 608920. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: PITPNM2 (human) mapping to 12q24.31; Pitpnm2 (mouse) mapping to 5 F.

SOURCE

Nir3 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Nir3 of human origin.

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.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69195 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nir3 (C-18) is recommended for detection of Nir3 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).

Nir3 (C-18) is also recommended for detection of Nir3 in additional species, including canine.

Suitable for use as control antibody for Nir3 siRNA (h): sc-75926, Nir3 siRNA (m): sc-75927, Nir3 shRNA Plasmid (h): sc-75926-SH, Nir3 shRNA Plasmid (m): sc-75927-SH, Nir3 shRNA (h) Lentiviral Particles: sc-75926-V and Nir3 shRNA (m) Lentiviral Particles: sc-75927-V.

Molecular Weight of Nir3: 148 kDa.

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.

RESEARCH USE

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