

PPEF-2 (N-20): sc-22467

BACKGROUND

PPEF-2 (protein phosphatase, EF-hand calcium binding domain 2) belongs to the serine/threonine protein phosphatase/EF-hand motif family and influences normal function of the visual system. PPEF family members appear to play specific roles in multiple types of sensory neurons and may act as markers for sensory neuron differentiation. A 3.7-kb PPEF-2 mRNA is detectable in rat retina. PPEF-2 expression appears to be exclusive to the inner segments of the photoreceptor cells of the retina and in the pineal gland. PPEF-2 contains a protein phosphatase catalytic domain, and at least two EF-hand calcium-binding motifs in its C terminus. PPEF-2 shares high sequence similarity with the *Drosophila* retinal degeneration C (rdgC) gene.

REFERENCES

1. Montini, E., Rugarli, E.I., Van de Vosse, E., Andolfi, G., Mariani, M., Puca, A.A., Consalez, G.G., den Dunnen, J.T., Ballabio, A. and Franco, B. 1997. A novel human serine-threonine phosphatase related to the *Drosophila* retinal degeneration C (rdgC) gene is selectively expressed in sensory neurons of neural crest origin. *Hum. Mol. Genet.* 6: 1137-1145.
2. Sherman, P.M., Sun, H., Macke, J.P., Williams, J., Smallwood, P.M. and Nathans, J. 1997. Identification and characterization of a conserved family of protein serine/threonine phosphatases homologous to *Drosophila* retinal degeneration C. *Proc. Natl. Acad. Sci. USA* 94: 11639-11644.
3. Ramulu, P., Kennedy, M., Xiong, W.H., Williams, J., Cowan, M., Blesh, D., Yau, K.W., Hurley, J.B. and Nathans, J. 2001. Normal light response, photoreceptor integrity, and rhodopsin dephosphorylation in mice lacking both protein phosphatases with EF hands (PPEF-1 and PPEF-2). *Mol. Cell. Biol.* 21: 8605-8614.
4. LocusLink Report (LocusID: 602256). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: PPEF2 (human) mapping to 4q21.1; Ppef2 (mouse) mapping to 5 E2.

SOURCE

PPEF-2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PPEF-2 of human origin.

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-22467 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PPEF-2 (N-20) is recommended for detection of PPEF-2 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).

PPEF-2 (N-20) is also recommended for detection of PPEF-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PPEF-2 siRNA (h): sc-39154, PPEF-2 siRNA (m): sc-39155, PPEF-2 shRNA Plasmid (h): sc-39154-SH, PPEF-2 shRNA Plasmid (m): sc-39155-SH, PPEF-2 shRNA (h) Lentiviral Particles: sc-39154-V and PPEF-2 shRNA (m) Lentiviral Particles: sc-39155-V.

Molecular Weight of PPEF-2 long form: 97 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.

PROTOCOLS

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


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Try **PPEF-2 (41): sc-293044**, our highly recommended monoclonal alternative to PPEF-2 (N-20).