

PCNXL2 (C-15): sc-165218

BACKGROUND

Human Pecanex proteins are homologs of the *Drosophila* Pecanex protein, a maternal-effect neurogenic protein that is involved in normal development of the fly nervous system. Three human Pecanex homologs exist, designated Pecanex, Pecanex 2, also known as PCNXL2 (pecanex-like 2), and Pecanex 3. Pecanex 2 is a 2,137 amino acid multi-pass membrane protein that exists as five alternatively spliced isoforms characterized by high mutational frequencies and biallelic mutations in colorectal tumors, thereby likely functioning as a target gene in these tumors. Pecanex 2 is encoded by a gene that maps to human chromosome 1q42.2, which is linked to an inherited microduplication. This microduplication that includes Pecanex 2 may play a role in autism and mild mental retardation.

REFERENCES

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2. LaBonne, S.G. and Mahowald, A.P. 1985. Partial rescue of embryos from two maternal-effect neurogenic mutants by transplantation of wild-type ooplasm. *Dev. Biol.* 110: 264-267.
3. LaBonne, S.G., Sunitha, I. and Mahowald, A.P. 1989. Molecular genetics of pecanex, a maternal-effect neurogenic locus of *Drosophila melanogaster* that potentially encodes a large transmembrane protein. *Dev. Biol.* 136: 1-16.
4. LaBonne, S.G. and Furst, A. 1989. Differentiation *in vitro* of neural precursor cells from normal and Pecanex mutant *Drosophila* embryos. *J. Neurogenet.* 5: 99-104.
5. Gilbert, T.L., Haldeman, B.A., Mulvihill, E. and O'Hara, P.J. 1992. A mammalian homologue of a transcript from the *Drosophila* pecanex locus. *J. Neurogenet.* 8: 181-187.
6. Geisinger, A., Alsheimer, M., Baier, A., Benavente, R. and Wettstein, R. 2005. The mammalian gene pecanex 1 is differentially expressed during spermatogenesis. *Biochim. Biophys. Acta* 1728: 34-43.

CHROMOSOMAL LOCATION

Genetic locus: PCNXL2 (human) mapping to 1q42.2; Pcnxl2 (mouse) mapping to 8 E2.

SOURCE

PCNXL2 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PCNXL2 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-165218 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCNXL2 (C-15) is recommended for detection of PCNXL2 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); non cross-reactive with Pecanex or PCNXL3.

PCNXL2 (C-15) is also recommended for detection of PCNXL2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PCNXL2 siRNA (h): sc-88388, PCNXL2 siRNA (m): sc-152154, PCNXL2 shRNA Plasmid (h): sc-88388-SH, PCNXL2 shRNA Plasmid (m): sc-152154-SH, PCNXL2 shRNA (h) Lentiviral Particles: sc-88388-V and PCNXL2 shRNA (m) Lentiviral Particles: sc-152154-V.

Molecular Weight of PCNXL2 isoforms 1/2/3/4/5: 237/32/87/75/48 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.