SANTA CRUZ BIOTECHNOLOGY, INC.

Polycystin-1L1 (E-15): sc-165260

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The Power to Question

BACKGROUND

Polycystin-1L1, also known as PKD1L1 (polycystic kidney disease 1 like 1), PRO19563 or PC1-like 1 protein, is a 2,849 amino acid multi-pass membrane protein. Belonging to the Polycystin family, Polycystin-1L1 contains eleven transmembrane domains, one GPS domain, two Ig-like PKD domains, one LH2/polycystin-1, lipoxygenase, α-toxin (PLAT) domain, one small receptor for egg jelly (REJ) domain and one coiled-coil domain. Encoded by a gene that maps to human chromosome 7p12.3, Polycystin-1L1 contains 58 exons and exists as two alternatively spliced isoforms. Polycystin-1L1 shares significant homology with all known Polycystins, and 61% sequence identity with its mouse homolog. Polycystin-1L1 is expressed in fetal and adult heart and in testis. Polycystin-1L1 is also expressed strongly in Leydig cells, a testosterone production source, and may play a role in the male reproductive system. Defects in the gene encoding Polycystin-1L1 may be associated with Polycystic kidney disease, a progressive disorder characterized by the presence of cysts in the kidneys.

REFERENCES

1. Yuasa, T., et al. 2002. The sequence, expression, and chromosomal localization of a novel polycystic kidney disease 1-like gene, PKD1L1, in human. Genomics 79: 376-386.
2. Luo, Y., et al. 2003. Native polycystin 2 functions as a plasma membrane Ca^{2+}-permeable cation channel in renal epithelia. Mol. Cell. Biol. 23: 2600-2607.
3. Clapham, D.E. 2003. TRP channels as cellular sensors. Nature 426: 517-524.
4. Lakkis, M. and Zhou, J. 2003. Molecular complexes formed with polycystins. Nephron Exp. Nephrol. 93: e3-e8.
5. Nauli, S.M. and Zhou, J. 2004. Polycystins and mechanosensation in renal and nodal cilia. Bioessays 26: 844-856.
6. Yuasa, T., et al. 2004. Polycystin-1L2 is a novel G-protein-binding protein. Genomics 84: 126-138.
7. Zhou, J. 2009. Polycystins and primary cilia: primers for cell cycle progression. Annu. Rev. Physiol. 71: 83-113.

CHROMOSOMAL LOCATION

Genetic locus: PKD1L1 (human) mapping to 7p12.3.

SOURCE

Polycystin-1L1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Polycystin-1L1 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-165260 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Polycystin-1L1 (E-15) is recommended for detection of Polycystin-1L1 of human and rat 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 Polycystin-1L2 or Polycystin-1L3.

Suitable for use as control antibody for Polycystin-1L1 siRNA (h): sc-89442, Polycystin-1L1 shRNA Plasmid (h): sc-89442-SH and Polycystin-1L1 shRNA (h) Lentiviral Particles: sc-89442-V.

Molecular Weight of Polycystin-1L1 isoforms: 315/284 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.

STORAGE

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

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.