



Polycystin-1L3 (E-15): sc-165266

BACKGROUND

Polycystin-1L3, also known as PKD1L3 (polycystic kidney disease 1-like 3), is a 1,732 amino acid multi-pass membrane protein that contains one PLAT domain, one GPS domain and one C-type lectin domain. Expressed at high levels in placenta and present at lower levels in lung and heart, Polycystin-1L3 is thought to function as an ion-channel regulator that may interact with Polycystin-L and play a role in heteromeric taste channels. The gene encoding Polycystin-1L3 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

- Li, A., Tian, X., Sung, S.W. and Somlo, S. 2003. Identification of two novel polycystic kidney disease-1-like genes in human and mouse genomes. *Genomics* 81: 596-608.
- Lopez Jimenez, N.D., Cavenagh, M.M., Sainz, E., Cruz-Ithier, M.A., Battey, J.F. and Sullivan, S.L. 2006. Two members of the TRPP family of ion channels, Pkd1l3 and Pkd2l1, are co-expressed in a subset of taste receptor cells. *J. Neurochem.* 98: 68-77.
- Ishimaru, Y., Inada, H., Kubota, M., Zhuang, H., Tominaga, M. and Matsunami, H. 2006. Transient receptor potential family members PKD1L3 and PKD2L1 form a candidate sour taste receptor. *Proc. Natl. Acad. Sci. USA* 103: 12569-12574.
- Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 607895. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Chen, W.C., Tzeng, Y.S. and Li, H. 2008. Gene expression in early and progression phases of autosomal dominant polycystic kidney disease. *BMC Res. Notes* 1: 131.
- Inada, H., Kawabata, F., Ishimaru, Y., Fushiki, T., Matsunami, H. and Tominaga, M. 2008. Off-response property of an acid-activated cation channel complex PKD1L3-PKD2L1. *EMBO Rep.* 9: 690-697.
- Ishimaru, Y. and Matsunami, H. 2009. Transient receptor potential (TRP) channels and taste sensation. *J. Dent. Res.* 88: 212-218.
- Garcia-Bailo, B., Toguri, C., Eny, K.M. and El-Soheby, A. 2009. Genetic variation in taste and its influence on food selection. *OMICS* 13: 69-80.

CHROMOSOMAL LOCATION

Genetic locus: Pkd1l3 (mouse) mapping to 8 D3.

SOURCE

Polycystin-1L3 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Polycystin-1L3 of mouse 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-165266 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

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

Suitable for use as control antibody for Polycystin-1L3 siRNA (m): sc-152385, Polycystin-1L3 shRNA Plasmid (m): sc-152385-SH and Polycystin-1L3 shRNA (m) Lentiviral Particles: sc-152385-V.

Molecular Weight of Polycystin-1L3: 196 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.