

PKDCC (P-15): sc-169299



The Power to Question

BACKGROUND

PKDCC (protein kinase domain-containing protein, cytoplasmic) also known as protein kinase-like protein Sgk493, sugen kinase 493 or vertebrate lonesome kinase, is 493 amino acid protein belonging to the protein kinase superfamily. PKDCC is found in the Golgi apparatus and is involved in protein transport to the plasma membrane and is also important in ATP binding, nucleotide binding, protein kinase activity, transferase activity and is required for longitudinal bone growth through regulation of chondrocyte differentiation. The PKDCC gene is conserved in chimpanzee, dog, mouse, rat and zebrafish, and the PKDCC protein is ubiquitously expressed in human tissues. PKDCC is suggested to be associated with atopy and atopic individuals with asthma, however murine PKDCC knockouts show extreme phenotypes that are unrelated to atopy or asthma, suggesting an additional role in abnormal respiration.

REFERENCES

- Hanks, S.K. 2003. Genomic analysis of the eukaryotic protein kinase superfamily: a perspective. *Genome Biol.* 4: 111.
- Castro-Giner, F., Bustamante, M., Ramon González, J., Kogevinas, M., Jarvis, D., Heinrich, J., Antó, J.M., Wjst, M., Estivill, X. and de Cid, R. 2009. A pooling-based genome-wide analysis identifies new potential candidate genes for atopy in the European community respiratory health survey (ECRHS). *BMC Med. Genet.* 10: 128.
- Sewell, W., Sparrow, D.B., Smith, A.J., Gonzalez, D.M., Rappaport, E.F., Dunwoodie, S.L. and Kusumi, K. 2009. Cyclical expression of the Notch/Wnt regulator Nrarp requires modulation by Dll3 in somitogenesis. *Dev. Biol.* 329: 400-409.
- Imuta, Y., Nishioka, N., Kiyonari, H. and Sasaki, H. 2009. Short limbs, cleft palate, and delayed formation of flat proliferative chondrocytes in mice with targeted disruption of a putative protein kinase gene, PKDCC (AW548124). *Dev. Dyn.* 238: 210-222.
- Kinoshita, M., Era, T., Jakt, L.M. and Nishikawa, S. 2009. The novel protein kinase Vlk is essential for stromal function of mesenchymal cells. *Development* 136: 2069-2079.
- Meurs, K.M., Mauceli, E., Lahmers, S., Acland, G.M., White, S.N. and Lindblad-Toh, K. 2010. Genome-wide association identifies a deletion in the 3' untranslated region of striatin in a canine model of arrhythmic right ventricular cardiomyopathy. *Hum. Genet.* 128: 315-324.
- SWISS-PROT/TrEMBL (Q504Y2). World Wide Web URL: <http://www.uniprot.org/uniprot/Q504Y2>

CHROMOSOMAL LOCATION

Genetic locus: PKDCC (human) mapping to 2p21; Pkdc (mouse) mapping to 17 E4.

SOURCE

PKDCC (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PKDCC 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-169299 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PKDCC (P-15) is recommended for detection of PKDCC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

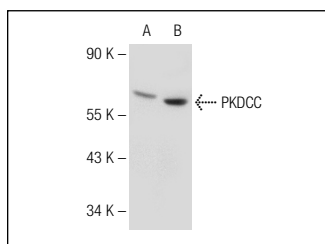
PKDCC (P-15) is also recommended for detection of PKDCC in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PKDCC siRNA (h): sc-94454, PKDCC siRNA (m): sc-153418, PKDCC shRNA Plasmid (h): sc-94454-SH, PKDCC shRNA Plasmid (m): sc-153418-SH, PKDCC shRNA (h) Lentiviral Particles: sc-94454-V and PKDCC shRNA (m) Lentiviral Particles: sc-153418-V.

Molecular Weight of PKDCC: 54 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

DATA



PKDCC (P-15): sc-169299. Western blot analysis of PKDCC expression in HeLa (A) and Jurkat (B) whole cell lysates.

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.



Try **PKDCC (G-10): sc-514504**, our highly recommended monoclonal alternative to PKDCC (P-15).