

# ANKS6 (D-16): sc-162530

## BACKGROUND

ANKS6 (ankyrin repeat and sterile  $\alpha$  motif domain containing 6), also known as ankyrin repeat domain-containing protein 14, SAMD6 (sterile  $\alpha$  motif domain-containing protein 6), SamCystin or PKDR1, is an 871 amino acid phosphoprotein that contains 11 ANK repeats, one SAM domain and exists as 3 alternatively spliced isoforms. Encoded by a gene that maps to human chromosome 9q22.33, ANKS6 is necessary for renal function and is linked to renal cyst formation in polycystic kidney disease. ANKS6 interacts with BICC1, another protein linked to polycystic kidney disease, and both co-localize to the same cell region. ANKS6 is involved in protein-protein interactions with both itself as well as BICC1, and both proteins function in a molecular pathway that is linked to cystogenesis. ANKS6 may also be associated with dental anomalies.

## REFERENCES

1. Brown, J.H., et al. 2005. Missense mutation in sterile  $\alpha$  motif of novel protein SamCystin is associated with polycystic kidney disease in (cy/+) rat. *J. Am. Soc. Nephrol.* 16: 3517-3526.
2. Wu, M., et al. 2007. Everolimus retards cyst growth and preserves kidney function in a rodent model for polycystic kidney disease. *Kidney Blood Press. Res.* 30: 253-259.
3. Kaisaki, P.J., et al. 2008. Genomic organization and mutation screening of the human ortholog of Pkdr1 associated with polycystic kidney disease in the rat. *Eur. J. Med. Genet.* 51: 325-331.
4. Vieira, A.R., et al. 2008. Candidate gene/loci studies in cleft lip/palate and dental anomalies finds novel susceptibility genes for clefts. *Genet. Med.* 10: 668-674.
5. Stagner, E.E., et al. 2009. The polycystic kidney disease-related proteins Bicc1 and SamCystin interact. *Biochem. Biophys. Res. Commun.* 383: 16-21.
6. Kugita, M., et al. 2010. Global gene expression profiling in early-stage polycystic kidney disease in the Han:SPRD Cy rat identifies a role for RXR signaling. *Am. J. Physiol. Renal Physiol.* 300: F177-F188.
7. Nagao, S., et al. 2010. Polycystic kidney disease in Han:SPRD Cy rats is associated with elevated expression and mislocalization of SamCystin. *Am. J. Physiol. Renal Physiol.* 299: F1078-F1086.
8. Torres, V.E., et al. 2010. Prospects for mTOR inhibitor use in patients with polycystic kidney disease and hamartomatous diseases. *Clin. J. Am. Soc. Nephrol.* 5: 1312-1329.

## CHROMOSOMAL LOCATION

Genetic locus: ANKS6 (human) mapping to 9q22.33; Anks6 (mouse) mapping to 4 B1.

## SOURCE

ANKS6 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANKS6 of human origin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162530 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ANKS6 (D-16) is recommended for detection of ANKS6 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 ANKS3 or ANKS4B.

ANKS6 (D-16) is also recommended for detection of ANKS6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ANKS6 siRNA (h): sc-92725, ANKS6 siRNA (m): sc-141121, ANKS6 shRNA Plasmid (h): sc-92725-SH, ANKS6 shRNA Plasmid (m): sc-141121-SH, ANKS6 shRNA (h) Lentiviral Particles: sc-92725-V and ANKS6 shRNA (m) Lentiviral Particles: sc-141121-V.

Molecular Weight of ANKS6: 92 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.