

nephrocystin-5 (N-15): sc-51344

BACKGROUND

The nephrocystin proteins comprise a family of five enzymes that commonly interact with p130 Cas, proline-rich tyrosine kinases, calmodulin and tensin, indicating that these proteins may participate in a common signaling pathway. Localized to the outer segments and primary cilia of photoreceptor cells, nephrocystin-5 is complexed with RPGR (retinitis pigmentosa GTPase regulator) and interacts directly with calmodulin. Nephrocystin-5 is thought to participate with RPGR in a pathway of ciliary function in the kidney and retina. Mutations in the gene encoding nephrocystin-5 are the primary cause of Senior-Loken syndrome 5, a juvenile disorder characterized by defects in the waste filtering system of the kidney, as well as retinal degradation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: IQCB1 (human) mapping to 3q13.33; *lqcb1* (mouse) mapping to 16 B3.

SOURCE

nephrocystin-5 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of nephrocystin-5 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-51344 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

nephrocystin-5 (N-15) is recommended for detection of nephrocystin-5 isoforms 1, 2 and 3 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).

nephrocystin-5 (N-15) is also recommended for detection of nephrocystin-5 isoforms 1, 2 and 3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for nephrocystin-5 siRNA (h): sc-72270, nephrocystin-5 siRNA (m): sc-72271, nephrocystin-5 shRNA Plasmid (h): sc-72270-SH, nephrocystin-5 shRNA Plasmid (m): sc-72271-SH, nephrocystin-5 shRNA (h) Lentiviral Particles: sc-72270-V and nephrocystin-5 shRNA (m) Lentiviral Particles: sc-72271-V.

Molecular Weight of nephrocystin-5: 69 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.