



nephrocystin-2 (M-21): sc-12555

BACKGROUND

Left-right asymmetry in vertebrates is essential for the development of lateral unpaired organs, including the heart, stomach and spleen, and it is dependent on the differential expression of specific genes, which include nodal, lefty and *Inv* (inversion of embryonic turning). *Inv* is expressed during presomite-stage embryos and persists in adulthood, with expression highest in the liver and kidneys. The amino acid sequence of *Inv* consists of 15 successive repeats of the Ank/Swi6 motif, which encompasses 33 amino acids that are consistently conserved in developmental-regulatory proteins and cell-cycle-regulatory proteins. Mice expressing *Inv* mutations are primarily generated by random insertional mutagenesis and result in the reversal of left/right polarity and cyst formation in the kidneys. Furthermore, altered *Inv* function reverses nodal and lefty expression, indicating that *Inv* signaling occurs upstream of these proteins involved in the development of asymmetry.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: *Invs* (mouse) mapping to 4 16.6 cM (4 B).

SOURCE

nephrocystin-2 (M-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of nephrocystin-2 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-12555 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

nephrocystin-2 (M-21) is recommended for detection of nephrocystin-2 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).

Suitable for use as control antibody for nephrocystin-2 siRNA (m): sc-149912, nephrocystin-2 shRNA Plasmid (m): sc-149912-SH and nephrocystin-2 shRNA (m) Lentiviral Particles: sc-149912-V.

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.