SANTA CRUZ BIOTECHNOLOGY, INC.

Fibrocystin (I-20): sc-49672

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The Power to Question

BACKGROUND

Fibrocystin is a type I membrane protein that undergoes regulated proteolysis. Many proteolytic cleavages occur on the ectodomain whereas at least one cleavage occurs on the cytoplasmic portion of Fibrocystin. The latter generates a C-terminal intracellular fragment that localizes to the nucleus. This proteolysis requires activation of protein kinase C (PKC) and release of intracellular calcium. Fibrocystin is expressed in the cilia of the bile duct epithelium and leads to abnormalities in the rubric of the ductal plate malformation. The intracellular C-terminus of Fibrocystin interacts with calcium modulating cyclophilin ligand (CAML), a protein implicated in calcium signaling. Fibrocystin may participate in the mediation of intracellular calcium in the distal nephron in a manner similar to PKD1 and PKD2. Mutations in the PKHD1 gene, which encodes Fibrocystin, result in autosomal recessive polycystic kidney disease (ARPKD), a severe form of polycystic kidney disease characterized by enlarged kidneys and congenital hepatic fibrosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PKHD1 (human) mapping to 6p12.3; Pkhd1 (mouse) mapping to 1 A3.

SOURCE

Fibrocystin (I-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Fibrocystin 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-49672 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Fibrocystin (I-20) is recommended for detection of Fibrocystin isoforms 1 and 2 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).

Fibrocystin (I-20) is also recommended for detection of Fibrocystin isoforms 1 and 2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Fibrocystin siRNA (h): sc-60637, Fibrocystin siRNA (m): sc-60638, Fibrocystin shRNA Plasmid (h): sc-60637-SH, Fibrocystin shRNA Plasmid (m): sc-60638-SH, Fibrocystin shRNA (h) Lentiviral Particles: sc-60637-V and Fibrocystin shRNA (m) Lentiviral Particles: sc-60638-V.

Molecular Weight of Fibrocystin: 447 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.