SANTA CRUZ BIOTECHNOLOGY, INC.

AQP3 (C-18): sc-9885

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Aquaporins (AQPs) are a large family of integral membrane water transport channel proteins that facilitate the transport of water through the cell membrane. This function is conserved in animals, plants and bacteria. Many isoforms of aquaporin have been identified in mammals, designated AQP0 through AQP10. Aquaporins are widely distributed and it is not uncommon for more than one type of AQP to be present in the same cell. Although most aquaporins are only permeable to water, AQP3, AQP7, AQP9 and one of the two AQP10 transcripts are also permeable to urea and glycerol. AQP2 is the only water channel that is activated by vasopressin to enhance water reabsorption in the kidney collecting duct. Aquaporins are involved in renal water absorption, generation of pulmonary secretions, lacrimation, and the secretion and reabsorption of cerebrospinal fluid and aqueous humor. AQP3 is expressed in the basolateral membrane by collecting duct cells in the kidney.

CHROMOSOMAL LOCATION

Genetic locus: AQP3 (human) mapping to 9p13.3; Aqp3 (mouse) mapping to 4 A5.

SOURCE

AQP3 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of AQP3 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-9885 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AQP3 (C-18) is recommended for detection of AQP3 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).

AQP3 (C-18) is also recommended for detection of AQP3 in additional species, including equine and canine.

Suitable for use as control antibody for AQP3 siRNA (h): sc-29713, AQP3 siRNA (m): sc-29714, AQP3 shRNA Plasmid (h): sc-29713-SH, AQP3 shRNA Plasmid (m): sc-29714-SH, AQP3 shRNA (h) Lentiviral Particles: sc-29713-V and AQP3 shRNA (m) Lentiviral Particles: sc-29714-V.

Molecular Weight of AQP3: 36 kDa.

Positive Controls: rat kidney extract: sc-2394.

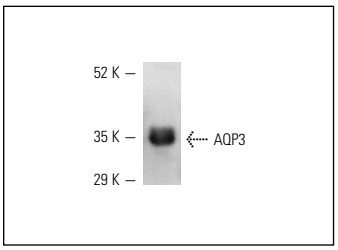
STORAGE

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.

DATA



AQP3 (C-18): sc-9885. Western blot analysis of AQP3 expression in rat kidney extract.

SELECT PRODUCT CITATIONS

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9. Murakami, A., et al. 2010. A novel method for isolating podocytes using magnetic activated cell sorting. Nephrol. Dial. Transplant. 25: 3884-3890.
10. Prat, C., et al. 2011. Ontogeny of aquaporins in human fetal membranes. Biol. Reprod. 86: 48.
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PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.