

AQP9 (C-18): sc-14989

BACKGROUND

Human AQP9 (aquaporin 9) is a 295 amino acid protein that allows passage of a wide variety of noncharged solutes and stimulates osmotic water permeability. 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. Aquaporins are involved in renal water absorption, generation of pulmonary secretions, lacrimation, and the secretion and reabsorption of cerebrospinal fluid and aqueous humor.

REFERENCES

1. Ma, T., et al. 1996. cDNA cloning and gene structure of a novel water channel expressed exclusively in human kidney: evidence for a gene cluster of aquaporins at chromosome locus 12q13. *Genomics* 35: 543-550.
2. Echevarria, M. and Ilundain, A.A. 1998. Aquaporins. *J. Physiol. Biochem.* 54: 107-118.
3. Ishibashi, K., et al. 1998. Cloning and functional expression of a new aquaporin (AQP9) abundantly expressed in the peripheral leukocytes permeable to water and urea, but not to glycerol. *Biochem. Biophys. Res. Commun.* 244: 268-274.
4. Beitz, E. and Schultz, J.E. 1999. The mammalian aquaporin water channel family: a promising new drug target. *Curr. Med. Chem.* 6: 457-467.

CHROMOSOMAL LOCATION

Genetic locus: AQP9 (human) mapping to 15q21.3.

SOURCE

AQP9 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of AQP9 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-14989 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

AQP9 (C-18) is recommended for detection of AQP9 of 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).

Suitable for use as control antibody for AQP9 siRNA (h): sc-42371, AQP9 shRNA Plasmid (h): sc-42371-SH and AQP9 shRNA (h) Lentiviral Particles: sc-42371-V.

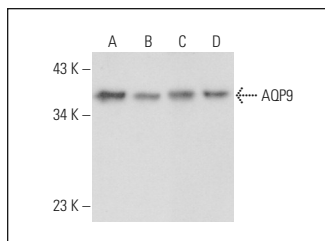
Molecular Weight of AQP9: 33 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MOLT-4 cell lysate: sc-2233 or HeLa whole cell lysate: sc-2200.

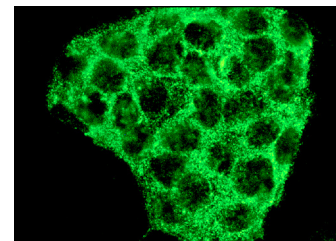
RECOMMENDED SECONDARY REAGENTS

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.

DATA



AQP9 (C-18): sc-14989. Western blot analysis of AQP9 expression in K-562 (A), MOLT-4 (B), HeLa (C) and Jurkat (D) whole cell lysates.



AQP9 (C-18): sc-14989. Immunofluorescence staining of methanol-fixed Hep G2 cells showing membrane localization.

RESEARCH USE

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

MONOS
Satisfaction
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Try **AQP9 (G-3): sc-74409**, our highly recommended monoclonal alternative to AQP9 (C-18).