

AQP9 (H-40): sc-28623

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.

CHROMOSOMAL LOCATION

Genetic locus: AQP9 (human) mapping to 15q21.3; Aqp9 (mouse) mapping to 9 D.

SOURCE

AQP9 (H-40) is a rabbit polyclonal antibody raised against amino acids 179-218 mapping within an internal region 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.

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.

APPLICATIONS

AQP9 (H-40) is recommended for detection of AQP9 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).

AQP9 (H-40) is also recommended for detection of AQP9 in additional species, including equine and canine.

Suitable for use as control antibody for AQP9 siRNA (h): sc-42371, AQP9 siRNA (m): sc-42372, AQP9 shRNA Plasmid (h): sc-42371-SH, AQP9 shRNA Plasmid (m): sc-42372-SH, AQP9 shRNA (h) Lentiviral Particles: sc-42371-V and AQP9 shRNA (m) Lentiviral Particles: sc-42372-V.

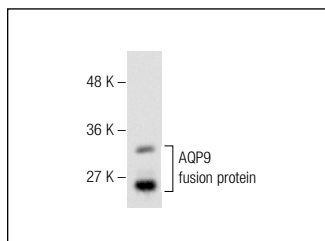
Molecular Weight of AQP9: 33 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HL-60 whole cell lysate: sc-2209 or rat liver extract: sc-2395.

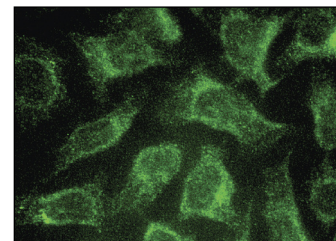
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



AQP9 (H-40): sc-28623. Western blot analysis of human recombinant AQP9 fusion protein.



AQP9 (H-40): sc-28623. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Miao, Z.F., et al. 2009. Increased aquaglyceroporin 9 expression disrupts arsenic resistance in human lung cancer cells. *Toxicol. In Vitro* 23: 209-216.
- Zhu, X., et al. 2010. The expression of aquaporin 8 and aquaporin 9 in fetal membranes and placenta in term pregnancies complicated by idiopathic polyhydramnios. *Early Hum. Dev.* 86: 657-663.
- Chen, C.H., et al. 2010. Hydrogen gas reduced acute hyperglycemia-enhanced hemorrhagic transformation in a focal ischemia rat model. *Neuroscience* 169: 402-414.
- Oliva, A.A., et al. 2011. Fluid-percussion brain injury induces changes in aquaporin channel expression. *Neuroscience* 180: 272-279.
- Jiang, S.S., et al. 2012. Expression and localization of aquaporins 8 and 9 in term placenta with oligohydramnios. *Reprod. Sci.* 19: 1276-1284.

PROTOCOLS

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

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Try **AQP9 (G-3): sc-74409**, our highly recommended monoclonal alternative to AQP9 (H-40).