

AQP8 (H-85): sc-28624

BACKGROUND

Human AQP8 (aquaporin 8) is a 261 amino acid protein that contains 6 membrane-spanning domains, 2 conserved asn-pro-ala (NPA) motifs, which are characteristic of MIP (major intrinsic protein) family members, and 3 N-linked glycosylation sites. 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. Koyama, N., et al. 1998. Cloning and functional expression of human aquaporin8 cDNA and analysis of its gene. *Genomics* 54: 169-172.
3. Echevarria, M., et al. 1998. Aquaporins. *J. Physiol. Biochem.* 54: 107-118.
4. Viggiano, L., et al. 1999. Assignment of the aquaporin-8 water channel gene (AQP8) to human chromosome 16p12. *Cytogenet. Cell Genet.* 84: 208-210.

CHROMOSOMAL LOCATION

Genetic locus: AQP8 (human) mapping to 16p12.1; Aqp8 (mouse) mapping to 7 F3.

SOURCE

AQP8 (H-85) is a rabbit polyclonal antibody raised against amino acids 1-85 mapping at the N-terminus of AQP8 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.

PROTOCOLS

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

APPLICATIONS

AQP8 (H-85) is recommended for detection of AQP8 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).

Suitable for use as control antibody for AQP8 siRNA (h): sc-42369, AQP8 siRNA (m): sc-42370, AQP8 shRNA Plasmid (h): sc-42369-SH, AQP8 shRNA Plasmid (m): sc-42370-SH, AQP8 shRNA (h) Lentiviral Particles: sc-42369-V and AQP8 shRNA (m) Lentiviral Particles: sc-42370-V.

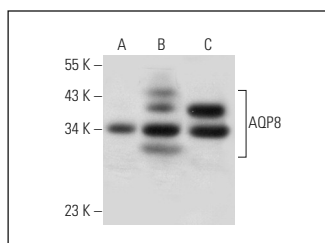
Molecular Weight of AQP8: 34 kDa.

Positive Controls: AQP8 (h): 293T Lysate: sc-115913, HeLa whole cell lysate: sc-2200 or SW480 cell lysate: sc-2219.

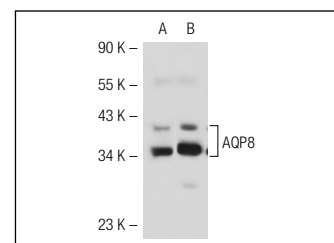
RECOMMENDED SECONDARY REAGENTS

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



AQP8 (H-85): sc-28624. Western blot analysis of AQP8 expression in SW480 (A), HeLa (B) and HCT 116 (C) whole cell lysates.



AQP8 (H-85): sc-28624. Western blot analysis of AQP8 expression in non-transfected 293T: sc-117752 (A) and human AQP8 transfected 293T: sc-115913 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Algamas-Dimantov, A., et al. 2012. Amelioration of diabetes-induced colorectal ontogenesis by ω -3 fatty acids in mice. *J. Lipid Res.* 53: 1056-1070.

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