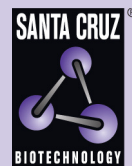


# AQP5 (H-200): sc-28628



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. In the lung, AQP5 is responsible for the majority of water transport across the apical membrane of type I alveolar epithelial cells.

## REFERENCES

1. Preston, G.M., et al. 1991. Isolation of the cDNA for erythrocyte integral membrane protein of 28 kilodaltons: member of an ancient channel family. *Proc. Natl. Acad. Sci. USA* 88: 11110-11114.
2. Deen, P.M., et al. 1994. Requirement of human renal water channel aquaporin-2 for vasopressin-dependent concentration of urine. *Science* 264: 92-95.

## SOURCE

AQP5 (H-200) is a rabbit polyclonal antibody raised against amino acids 66-265 mapping at the C-terminus of AQP5 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.

## APPLICATIONS

AQP5 (H-200) is recommended for detection of AQP5, and to a lesser extent, AQP0, AQP2, AQP4 and AQP6 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); not recommended for detection of other Aquaporin family members.

AQP5 (H-200) is also recommended for detection of AQP5, and to a lesser extent, AQP0, AQP2, AQP4 and AQP6 in additional species, including canine, bovine and porcine.

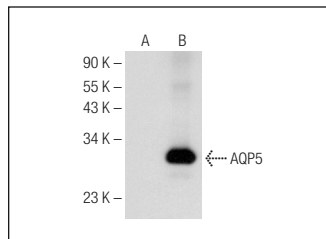
Molecular Weight of AQP5: 35 kDa.

Positive Controls: AQP5 (h): 293T Lysate: sc-173646 or KNRK whole cell lysate: sc-2214.

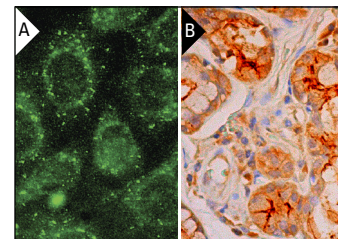
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



AQP5 (H-200): sc-28628. Western blot analysis of AQP5 expression in non-transfected: sc-117752 (A) and human AQP5 transfected: sc-173646 (B) 293T whole cell lysates.



AQP5 (H-200): sc-28628. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing membrane and cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

1. Hayashi, T., et al. 2009. Differential diagnosis between freshwater drowning and saltwater drowning based on intrapulmonary aquaporin 5 expression. *Int. J. Legal Med.* 123: 7-13.
2. Zhang, Y., et al. 2010. Activation of transient receptor potential vanilloid subtype 1 increases secretion of the hypofunctional, transplanted submandibular gland. *Am. J. Physiol. Gastrointest. Liver Physiol.* 299: G54-G62.
3. Delgado, O., et al. 2011. Multipotent capacity of immortalized human bronchial epithelial cells. *PLoS ONE* 6: e22023.
4. Maria, O.M., et al. 2011. Matrigel improves functional properties of primary human salivary gland cells. *Tissue Eng. Part A* 17: 1229-1238.
5. Dauner, K., et al. 2012. Expression patterns of anoctamin 1 and anoctamin 2 chloride channels in the mammalian nose. *Cell Tissue Res.* 347: 327-341.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

**MONOS**  
Satisfaction  
Guaranteed

Try **AQP5 (D-7): sc-514022**, our highly recommended monoclonal alternative to AQP5 (H-200). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **AQP5 (D-7): sc-514022**.