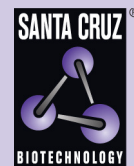


# AQP4 (H-80): sc-20812



The Power to Question

## BACKGROUND

In skeletal muscle, AQP4 (aquaporin 4 also known as mercurial insensitive water channel), localizes to the sarcolemma of fast-twitch muscle fibers. 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 AQPO 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.

## CHROMOSOMAL LOCATION

Genetic locus: AQP4 (human) mapping to 18q11.2; Aqp4 (mouse) mapping to 18 A1.

## SOURCE

AQP4 (H-80) is a rabbit polyclonal antibody raised against amino acids 244-323 mapping at the C-terminus of AQP4 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

AQP4 (H-80) is recommended for detection of AQP4 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).

AQP4 (H-80) is also recommended for detection of AQP4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AQP4 siRNA (h): sc-29715, AQP4 siRNA (m): sc-29716, AQP4 siRNA (r): sc-156007, AQP4 shRNA Plasmid (h): sc-29715-SH, AQP4 shRNA Plasmid (m): sc-29716-SH, AQP4 shRNA Plasmid (r): sc-156007-SH, AQP4 shRNA (h) Lentiviral Particles: sc-29715-V, AQP4 shRNA (m) Lentiviral Particles: sc-29716-V and AQP4 shRNA (r) Lentiviral Particles: sc-156007-V.

Molecular Weight of AQP4: 34 kDa.

Positive Controls: AQP4 (m): 293T Lysate: sc-118504, HeLa whole cell lysate: sc-2200 or mouse kidney extract: sc-2255.

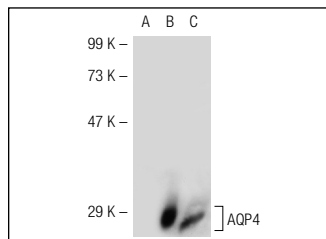
## RESEARCH USE

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

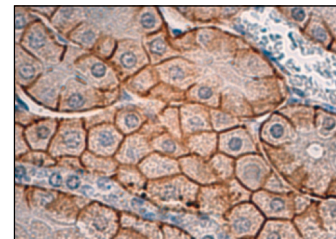
## STORAGE

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

## DATA



AQP4 (H-80): sc-20812. Western blot analysis of AQP4 expression in non-transfected: sc-117752 (A) and mouse AQP4 transfected: sc-118504 (B) 293T whole cell lysates and mouse kidney tissue extract (C).



AQP4 (H-80): sc-20812. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing membrane localization.

## SELECT PRODUCT CITATIONS

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Try **AQP4 (4/18): sc-32739** or **AQP4 (B-5): sc-390488**, our highly recommended monoclonal alternatives to AQP4 (H-80). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **AQP4 (4/18): sc-32739**.