SANTA CRUZ BIOTECHNOLOGY, INC.

AQP8 (E-20): sc-14984

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

AQP8 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near 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.

Blocking peptide available for competition studies, sc-14984 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.

APPLICATIONS

AQP8 (E-20) 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), 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).

AQP8 (E-20) is also recommended for detection of AQP8 in additional species, including equine, canine, bovine and porcine.

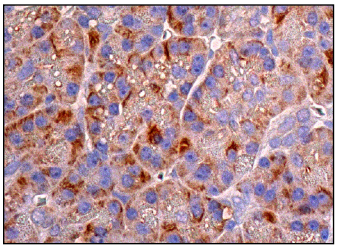
Suitable for use as control antibody for AQP8 siRNA (h): sc-42369, AQP8 siRNA (m): sc-42370, AQP8 shRNA Plasmid (h): sc-42369-SH, AQP8 shRNA Plasmid (m): sc-42370-SH, AQP8 shRNA (h) Lentiviral Particles: sc-42369-V and AQP8 shRNA (m) Lentiviral Particles: sc-42370-V.

Molecular Weight of AQP8: 34 kDa.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



AQP8 (E-20): sc-14984. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Larsen, H.S., et al. 2009. Aquaporin expression patterns in the developing mouse salivary gland. Eur. J. Oral Sci. 117: 655-662.

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.