Aquaporin 2 (Phospho-S256) polyclonal antibody

Catalog: BS67427 Host: Rabbit Reactivity: Human, Mouse, Rat, Bovine, Dog, Pig, Sheep

BackGround:

Aquaporin 2 (AQP2) is a water transport protein that forms water channels in kidney tubules and plays a predominant role in controlling organism water homeostasis . Members of the aquaporin family are multiple pass transmembrane proteins that form homotetramers to facilitate the flow of water across the plasma membrane. At least thirteen aquaporins have been indentified to date (AQP0 through AQP12) and together this family of small, hydrophobic proteins plays a role in an array of biological processes that include urine formation, cell motility, fertilization, cell junction formation and regulation of overall water homeostasis . AQP2 tetramers form water channels that facilitate water transport and excretion in the kidney . This transport protein is localized to the plasma membrane is response to endocrine signaling. Posterior pituitary hormones arginine vasopressin (AVP) and ADH regulate osmotic water cell permeability by triggering phosphorylation and subsequent exocytosis of AQP2. Mutations in the corresponding AQP2 gene cause a rare form of diabetes known as nephrogenic diabetes insipidus. This autosomal dominant disorder is characterized by abnormal water reabsorption by kidney tubules due, in part, to either nonfunctional or mislocalized AQP2 protein.

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 26 kDa

Swiss-Prot:

P41181

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200)

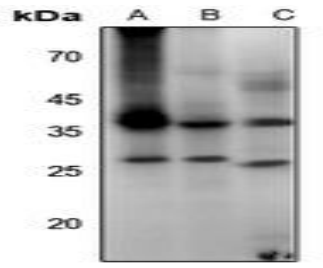
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

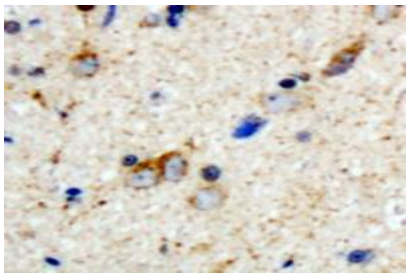
Specificity:

Recognizes endogenous levels of Aquaporin 2 with a site at pS256 protein.

DATA:



Western blot analysis of Aquaporin 2 (pS256) expression in mouse kidney (A), rat kidney (B), mouse lung (C) whole cell lysates.



Immunohistochemical analysis of Aquaporin 2 (pS256) staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

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

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