

### Anti-Aquaporin 2 (Ser264) Antibody

Our Anti-Aquaporin 2 (Ser264) rabbit polyclonal phosphospecific primary antibody from PhosphoSolutio

Catalog # AN1313

## **Specification**

## Anti-Aquaporin 2 (Ser264) Antibody - Product Information

Application WB
Primary Accession P34080
Reactivity Bovine
Host Rabbit
Clonality Polyclonal
Isotype IgG
Calculated MW 28931

### Anti-Aquaporin 2 (Ser264) Antibody - Additional Information

Gene ID **25386** 

#### **Other Names**

ADH water channel antibody, AQP 2 antibody, AQP CD antibody, AQP-2 antibody, AQP-CD antibody, AQP2 antibody, AQP2\_HUMAN antibody, AQPCD antibody, Aquaporin 2 collecting duct antibody, Aquaporin CD antibody, Aquaporin-2 antibody, Aquaporin-CD antibody, Aquaporin2 antibody, Aquaporine 2 antibody, Collecting duct water channel protein antibody, MGC34501 antibody, Water channel aquaporin 2 antibody, Water channel protein for renal collecting duct antibody, WCH CD antibody, WCH-CD antibody

### Target/Specificity

Aquaporin 2 (AQP2) is a hormonally regulated water channel located in the renal collecting duct. Mutations in the AQP2 gene cause hereditary nephrogenic diabetes insipidus in humans (lolascon et al.,2007). A vasopressin induced cAMP increase results in the phosphorylation of AQP2 at serine-256 and its translocation from the intracellular vesicles to the apical membrane of principal cells (van Balkom et al., 2002). Recently, serine-264 has been identified as a novel phosphorylation site on AQP2 and shown to be regulated by vasopressin thus implicating this site as important in AQP2 trafficking and subcellular distribution (Fenton RA et al., 2008).

#### **Format**

Antigen Affinity Purified from Pooled Serum

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

# **Precautions**

Anti-Aquaporin 2 (Ser264) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Shipping

Blue Ice

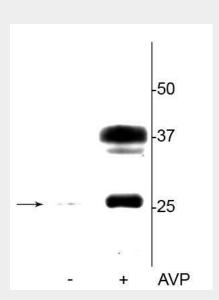


## Anti-Aquaporin 2 (Ser264) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## Anti-Aquaporin 2 (Ser264) Antibody - Images



Western blot of rat kidney lysate showing specific immunolabeling of the  $\sim$ 29 kDa and 37 kDa glycosylated form of the AQP2 protein phosphorylated at Ser264 in the vasopressin (AVP) treated lane (+), but not in the control lane (-).

# Anti-Aquaporin 2 (Ser264) Antibody - Background

Aquaporin 2 (AQP2) is a hormonally regulated water channel located in the renal collecting duct. Mutations in the AQP2 gene cause hereditary nephrogenic diabetes insipidus in humans (Iolascon et al., 2007). A vasopressin induced cAMP increase results in the phosphorylation of AQP2 at serine-256 and its translocation from the intracellular vesicles to the apical membrane of principal cells (van Balkom et al., 2002). Recently, serine-264 has been identified as a novel phosphorylation site on AQP2 and shown to be regulated by vasopressin thus implicating this site as important in AQP2 trafficking and subcellular distribution (Fenton RA et al., 2008).