Anti-Phospho-Ser\textsuperscript{269} Aquaporin 2
Antibody

Catalog #: p112-269   Size: 100 µl

Cite this Antibody: PhosphoSolutions Cat# p112-269, RRID:AB_2492043

<table>
<thead>
<tr>
<th>Host</th>
<th>Applications</th>
<th>Species Tested</th>
<th>Species Reactivity*</th>
<th>Molecular Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>WB 1:1000</td>
<td>R</td>
<td>B, C, M</td>
<td>~29 &amp; ~37 kDa</td>
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<tr>
<td></td>
<td>IHC 1:100 (Hoffert et al., 2008)</td>
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Product Description: Affinity purified rabbit polyclonal antibody.

Biological Significance: 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). Serine-269 has been recently identified as a vasopressin-mediated phosphorylation site on AQP2 and as such has shown to potentiate plasma membrane retention of AQP2 (Hoffert JD et al., 2008).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser\textsuperscript{269} of rat aquaporin 2.

Antibody Specificity: Specific for endogenous levels of the ~29 kDa AQP2 protein phosphorylated at Ser\textsuperscript{269}. Also recognizes the glycosylated form of AQP2 at ~37 kDa. Immunolabeling is blocked by preadsorption with the phosphopeptide used as antigen, but not by the corresponding non-phosphopeptide.

Purification Method: Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

Storage and Stability: Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.

Western blot of rat kidney lysate showing specific immunolabeling of the ~29 kDa and 37 kDa glycosylated form of the AQP2 protein phosphorylated at Ser\textsuperscript{269} in the vasopressin (AVP) treated lane (+), but not in the control lane (-).

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Product Specific References:


General References:

