Anti-Phospho-Ser\textsuperscript{261} Aquaporin 2 Antibody

Cite this Antibody: PhosphoSolutions Cat# p112-261, RRID:AB_2492041

<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, M</td>
<td>B, C, Ch, H, M, NHP</td>
<td>~29 &amp; ~37 kDa</td>
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<tr>
<td></td>
<td>IHC 1:100</td>
<td>(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 Ser\textsuperscript{256} and its translocation from the intracellular vesicles to the apical membrane of principal cells (van Balkom et al., 2002). Recently, Ser\textsuperscript{261} has been identified as a novel phosphorylation site on AQP2 and levels of phosphorylated Ser\textsuperscript{261} have been shown to decrease with vasopressin treatment suggesting its involvement in vasopressin-dependent AQP2 trafficking (Hoffert et al., 2007).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser\textsuperscript{261} of rat aquaporin 2.

Antibody Specificity: Specific for endogenous levels of the ~29 kDa AQP2 protein phosphorylated at Ser\textsuperscript{261}. 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.
Product Specific References:


General References:

