

AP05670PU-N**Polyclonal Antibody to Aquaporin-2 / AQP2 pSer261 - Purified****Alternate names:**

ADH water channel, AQP-CD, Aquaporin-CD, Collecting duct water channel protein, WCH-CD, Water channel protein for renal collecting duct

Quantity:

0.1 ml

Background:

AQP2 provides the plasma membranes of the renal collecting duct with a high permeability channel to enable the movement of water across an osmotic gradient, under hormonal regulation by vasopressin. In addition to the Ser256 phosphorylation site, studies have identified a novel phosphorylated Ser261 site on AQP2, which decreases in expression, in response to vasopressin.

Gene mutations in AQP2 result in hereditary nephrogenic diabetes insipidus in humans, and acquired diabetes insipidus can also occur through a decrease in the expression of the AQP2 gene, following lithium treatment. Expression of the AQP2 gene is increased during pregnancy and other conditions associated with water retention.

Uniprot ID:

[P34080](#)

NCBI:

[NP_037041.2](#)

GeneID:

[25386](#)

Host / Isotype:

Rabbit / IgG

Immunogen:

Synthetic phosphopeptide corresponding to an amino acid sequence within Aquaporin 2, which includes phosphorylated Ser261.

Format:

State: Liquid purified IgG

Buffer System: 10mM Hepes pH7.5 containing 0.09% Sodium Azide (NaN₃), 0.01% Bovine Serum Albumin, 50% Glycerol

Applications:

Western Blot: 1:1000; detects bands of approximately 29kDa and 37kDa (glycosylated form) in rat kidney cell lysates.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody specifically recognises the 29kDa integral membrane protein Aquaporin 2 (AQP2), when phosphorylated at Ser261.

Species: Rat.

Other species not tested.

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

Caution:

(A full Health and Safety assessment is available upon request) This product contains Sodium Azide: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

General Readings:

1. Liu, H. and Wintour, E.M. (2005) Aquaporins in development - a review. *Reprod. Biol. Endocrinol.* 3: 18 - 27.
2. Hoffert, J.D. et al. (2007) Dynamics of aquaporin2 serine261 phosphorylation in response to shortterm vasopressin treatment in collecting duct. *Am. J. Physiol. Renal Physiol.* 292: 691 - 700.