ARG52228
anti-Aquaporin 2 phospho (Ser261) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Aquaporin 2 phospho (Ser261)
Tested Reactivity	Rat
Predict Reactivity	Hu, Ms, Bov, Chk, Dog, NHuPrm
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Aquaporin 2
Species	Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser261 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	Aquaporin-2; Aquaporin-CD; AQP-2; ADH water channel; Collecting duct water channel protein; Water channel protein for renal collecting duct; AQP-CD; WCH-CD

Application Instructions

Application table

Application	Dilution
IHC-P	Assay-dependent
WB	1:1000

Application Note

Specific for ~29k AQP2 protein phosphorylated at Ser261. Also recognizes the glycosylated form of AQP2 at ~ 37k. Immunolabeling of the AQP2 band is blocked by preadsorption with the phospho-peptide used as antigen but not by the corresponding dephospho-peptide.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

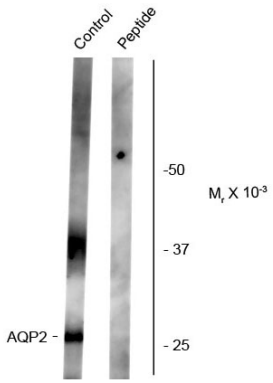
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 25386 Rat Swiss-port # P34080 Rat
Gene Symbol	AQP2
Gene Full Name	aquaporin 2 (collecting duct)
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-261 has been identified as a novel phosphorylation site on AQP2 and levels of phosphorylated S261 have been shown to decrease with vasopressin treatment suggesting its involvement in vasopressin-dependent AQP2 trafficking (Hoffert et al., 2007).
Research Area	Metabolism antibody; Signaling Transduction antibody
Calculated Mw	29 kDa
PTM	Ser-256 phosphorylation is necessary and sufficient for expression at the apical membrane. Endocytosis is not phosphorylation-dependent.

Images



ARG52228 anti-Aquaporin 2 phospho (Ser261) antibody WB image

Western blot: Rat kidney lysate showing phospho-specific immunolabeling of the ~29k and 37k glycosylated form of the AQP2 protein phosphorylated at Ser 261 stained with ARG52228 anti-Aquaporin 2 phospho (Ser261) antibody.