

Rabbit anti-Mouse, Rat Aqp2 Polyclonal Antibody | anti-Aqp2 antibody

Anti-Aqp2 Antibody Picoband

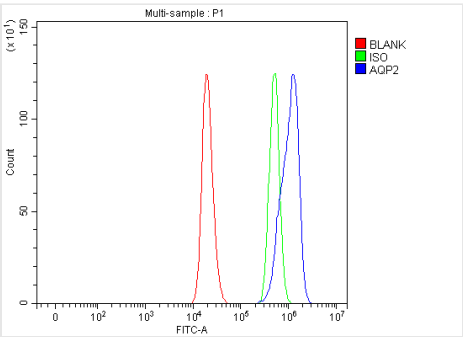
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127021	Rabbit	Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

Aqp2; Polyclonal Antibody; Anti-Aqp2 Antibody Picoband; Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody; KS6B1_HUMAN antibody; p70 alpha antibody; P70 beta 1 antibody; p70 ribosomal S6 kinase alpha antibody; p70 ribosomal S6 kinase beta 1 antibody; p70 S6 kinase alpha antibody; P70 S6 Kinase antibody; p70 S6 kinase alpha 1 antibody; p70 S6 kinase alpha 2 antibody; p70 S6K antibody; p70 S6K-alpha antibody; p70 S6KA antibody; p70(S6K) alpha antibody; p70(S6K)-alpha antibody; p70-alpha antibody; p70-S6K 1 antibody; p70-S6K antibody; P70S6K antibody; P70S6K1 antibody; p70S6Kb antibody; PS6K antibody; Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody; Ribosomal protein S6 kinase beta 1 antibody; Ribosomal protein S6 kinase beta-1 antibody; Ribosomal protein S6 kinase I antibody; RPS6KB1 antibody; S6K antibody; S6K-beta-1 antibody; S6K1 antibody; Serine/threonine kinase 14 alpha antibody; Serine/threonine-protein kinase 14A antibody; STK14A antibody; anti-Aqp2 antibody

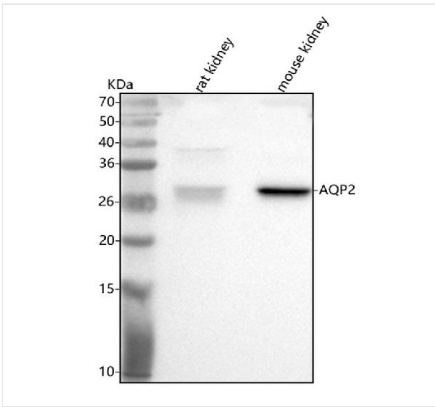
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Expressed in all tissues.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Applicable Applications for anti-Aqp2 antibody	ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E coli-derived mouse Aqp2 recombinant protein (Position: A102-A271). Mouse Aqp2 shares 87.6% and 98.2% amino acid (aa) sequence identity with human and rat Aqp2, respectively.
Subcellular Localization	Cytoplasm, Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross reactivity with other proteins.
Protein Function	Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of RAW264.7 cells using anti-Aqp2 antibody (AAA127021).Overlay histogram showing RAW264.7 cells stained with AAA127021 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Aqp2 Antibody (AAA127021, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of Aqp2 using anti-Aqp2 antibody (AAA127021).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: rat kidney tissue lysates,Lane 2: mouse kidney tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Aqp2 antigen affinity purified polyclonal antibody (#AAA127021) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Aqp2 at approximately 26 kDa. The expected band size for Aqp2 is at 30 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-Aqp2 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-Aqp2 antibody	Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins
References	1. Bouley, R., Breton, S., Sun, T., McLaughlin, M., Nsumu, N. N., Lin, H. Y., Ausiello, D. A., Brown, D. Nitric oxide and atrial natriuretic factor stimulate cGMP-dependent membrane insertion of aquaporin 2 in renal epithelial cells. J. Clin. Invest. 106: 1115-1126, 2000.2. Canfield, M. C., Tamarappoo, B. K., Moses, A. M., Verkman, A. S., Holtzman, E. J. Identification and characterization of aquaporin-2 water channel mutations causing nephrogenic diabetes insipidus with partial vasopressin response. Hum. Molec. Genet. 6: 1865-1871, 1997.3. Deen, P. M. T., Croes, H., van Aubel, R. A. M. H., Ginsel, L. A., van Os, C. H. Water channels encoded by mutant aquaporin-2 genes in nephrogenic diabetes insipidus are impaired in their cellular routing. J. Clin. Invest. 95: 2291-2296, 1995.

NCBI AND UNIPROT INFORMATION

NCBI GI #	160415209
NCBI GeneID	11827
NCBI Accession #	NP_033829.3
NCBI GenBank Nucleotide #	NM_009699.3
UniProt Accession #	P56402; Q8VCG5; Q9R232
Molecular Weight	28,965 Da
NCBI Official Full Name	aquaporin-2
NCBI Official Synonym Full Names	aquaporin 2

NCBI Official Symbol	Aqp2
NCBI Official Synonym Symbols	cph; jpk; AQP-CD; WCH-CD
NCBI Protein Information	aquaporin-2
UniProt Protein Name	Aquaporin-2
UniProt Gene Name	Aqp2
UniProt Synonym Gene Names	AQP-2; AQP-CD
UniProt Entry Name	AQP2_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://www.aaabiotech.com/polyclonal/aqp2-antibody-flow-cytometry-western-blot-elisa/127021>