

Basic Information

Product Name	Anti-AQP1 Antibody	
Gene Name	AQP1	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% Na ₂ S ₂ O ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Aquaporin 1 (240-269aa DRVKVWTSGQVEEYDLDDADDINSRVEMKPK), different from the related mouse and rat sequences by one amino acid.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	28KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF):1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Aquaporin 1 is a 28-kD integral protein thought at first to be a breakdown product of the Rh polypeptide but was later shown to be a unique molecule that is abundant in erythrocytes and renal tubules. AQP1 is also expressed by the choroid plexus and various other tissues. It forms a water-specific channel that provides the plasma membranes of red cells and kidney proximal tubules with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient.

Reference

Anti-AQP1 Antibody被引用在1文献中。

Selected Validation Data



Figure 1. Western blot analysis of Aquaporin 1 using anti-Aquaporin 1 antibody (PB9473). 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 50ug of sample under reducing conditions. Lane 1: Rat Kidney Tissue Lysate, Lane 2: Rat Lung Tissue Lysate, Lane 3: Rat Cardiac Muscle Tissue Lysate, Lane 4: PC-12 Whole Cell Lysate, Lane 5: HEPA Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Aquaporin 1 antigen affinity purified polyclonal antibody (Catalog # PB9473) at 0.5 μ g/mL overnight at 4°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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Aquaporin 1 at approximately 28KD. The expected band size for Aquaporin 1 is at 29KD.

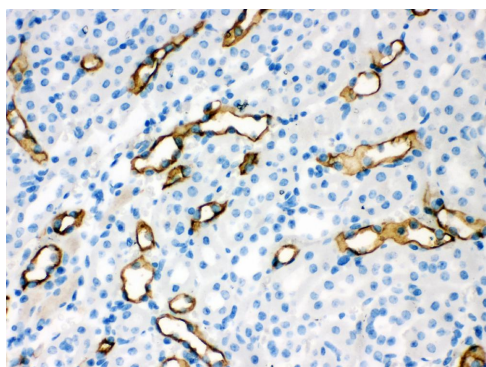


Figure 2. IHC analysis of Aquaporin 1 using anti-Aquaporin 1 antibody (PB9473). Aquaporin 1 was detected in paraffin-embedded section of Mouse Kidney Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-Aquaporin 1 Antibody (PB9473) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

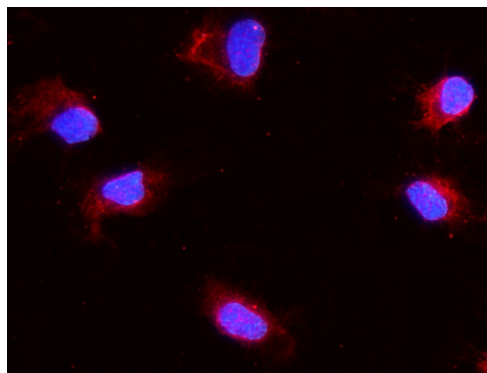


Figure 5. ICC analysis of anti-AQP1 antibody (PB9473).was detected in immunocytochemical section of NRK cells. Cells were stained using the Dylight550-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog?#?BA1135) and counterstained with DAPI (blue).

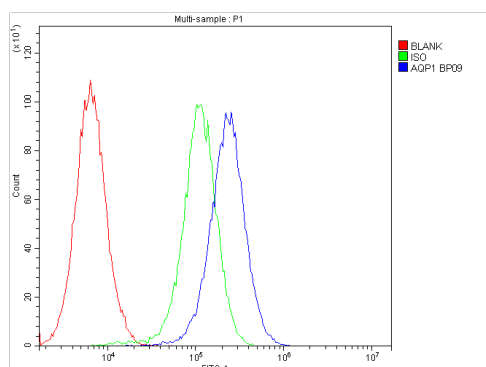


Figure 6. Flow cytometry analysis of U2OS cell(1x10⁶) DyLight488 conjugated goat anti-rabbit IgG(blue) was used as secondary antibody.Isotype control antibody (Green line) was rabbit IgG DyLight488. Unlabelled sample (Red line).