BOSTER
antibody and ELISA experts

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Anti-Aquaporin 1/AQP1 Antibody Picoband®

Catalog Number: A00865

About AQP1

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.

Overview

Product Name	Anti-Aquaporin 1/AQP1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Aquaporin 1/AQP1 Antibody Picoband® catalog # A00865. Tested in WB applications. This antibody reacts with Mouse, Rat. 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.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P29972

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at C-terminus of human AQP1, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Mouse, Rat

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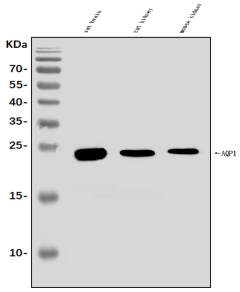
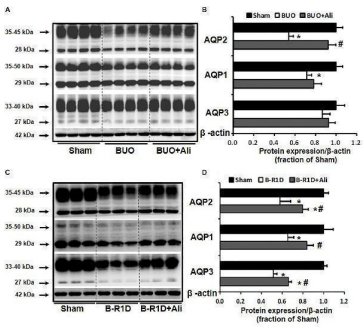
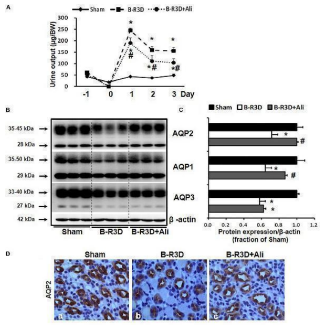
Anti-Aquaporin 1/AQP1 Antibody Picoband® (A00865) Images



Western blot analysis of Aquaporin 1/AQP1 using anti-Aquaporin 1/AQP1 antibody (A00865). 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 brain tissue lysates, Lane 2: rat kidney tissue lysates, Lane 3: 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-Aquaporin 1/AQP1 antigen affinity purified polyclonal antibody (Catalog # A00865) at 0.5 ug/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 1:5000 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/AQP1 at approximately 23 kDa. The expected band size for Aquaporin 1/AQP1 is at 23 kDa.



Aliskiren treatment prevented the reduction in water channel AQP2 expression in the obstructed kidneys of BUO and B-R1D mice. Semi-quantitative immunoblots probed with anti-AQP2, -AQP1, -AQP3, and -beta-actin antibodies in the whole kidneys of BUO mice (A) and in the whole kidneys of B-R1D mice (C) . Corresponding densitometric analyses of AQP2, AQP1, and AQP3 protein expression corrected for beta-actin in BUO mice (B) and in B-R1D mice (D) . Sham, sham-operated mice; BUO, bilateral ureteral obstruction for 24 h; BUO + Ali, BUO mice treated with aliskiren; B-R1D, bilateral ureteral obstruction for 16 h followed by 1-day release; B-R1D + Ali, B-R1D mice treated with aliskiren. ∗ $p < 0.05$ compared with the sham group; # $p < 0.05$ compared with the BUO/B-R1D group.Index in PubMed under a CC BY license. PMID: 31572210



Aliskiren treatment prevented polyuria and the reduction in water channel AQP2 and AQP1 expression in the obstructed kidneys of B-R3D mice. (A) Urine output was collected from sham, B-R3D, and aliskiren-treated mice. (B) Semi-quantitative immunoblots probed with anti-AQP2, -AQP1, -AQP3, and beta-actin antibodies. (C) Corresponding densitometric analyses of the AQP2, AQP1, and AQP3 protein expression corrected for beta-actin. (D) Immunohistochemistry of AQP2 in the kidneys of aliskiren-treated or non-treated B-R3D mice. Sham, sham-operated groups; B-R3D, bilateral ureteral obstruction for 16 h followed by 3 days release; B-R3D + Ali, B-R3D group with aliskiren treatment. ∗ $p < 0.05$ compared with sham group; # $p < 0.05$ compared with B-R3D groups.Index in PubMed under a CC BY license. PMID: 31572210

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1 Publications Citing This Product

1. PubMed ID: 10.1152/ajprenal.00225.2016, 4-PBA improves lithium-induced nephrogenic diabetes insipidus by attenuating ER stress

Visit bosterbio.com/anti-aquaporin-1-aqp1-picoband-trade-antibody-a00865-boster.html to see all 1 publications.

Anti-Aquaporin 1/AQP1 Antibody

For Research Use Only. Not for use in diagnostic procedures.