Datasheet for ABIN5518806

anti-AQP3 antibody (Middle Region)

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Overview

Quantity:	100 µg
Target:	AQP3
Binding Specificity:	AA 122-137, Middle Region
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This AQP3 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	Anti-Aquaporin 3/Aqp3 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of mouse Aquaporin 3, different from the related human sequence by three amino acids, and from the related rat sequence by two amino acids.
Sequence:	LYYDAIWAFA NNELFV
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-Aquaporin 3/Aqp3 Antibody Picoband® (ABIN5518806). Tested in WB applications. This antibody reacts with Human, 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

Product Details

	as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	AQP3
Alternative Name:	Aqp3 (AQP3 Products)
Background:	Synonyms: Aquaporin-3,AQP-3,Aquaglyceroporin-3,Aqp3, Tissue Specificity: Renal medulla and colon. Predominantly in the inner medulla. Expressed in basal layer of epidermal keratinocytes. Background: This gene encodes the water channel protein aquaporin 3. Aquaporins are a family of small integral membrane proteins related to the major intrinsic protein, also known as aquaporin 0. Aquaporin 3 is localized at the basal lateral membranes of collecting duct cells in the kidney. In addition to its water channel function, aquaporin 3 has been found to facilitate the transport of nonionic small solutes such as urea and glycerol, but to a smaller degree. It has been suggested that water channels can be functionally heterogeneous and possess water and solute permeation mechanisms. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms.
Molecular Weight:	32 kDa
Gene ID:	11828
UniProt:	Q8R2N1

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Mouse, Rat, Human 1. Dibas AI, Mia AJ, Yorio T (1998). "Aquaporins (water channels): role in vasopressin-activated water transport". Proc. Soc. Exp. Biol. Med. 219 (3): 183-99. 2. Roudier N, Ripoche P, Gane P, Le Pennec PY, Daniels G, Cartron JP, Bailly P (2002). "AQP3 deficiency in humans and the molecular basis of a novel blood group system, GIL". J. Biol. Chem. 277 (48): 45854-9. 3. Sasaki S, Ishibashi K, Marumo F (1998). "Aquaporin-2 and -3: representatives of two subgroups of the aquaporin family colocalized in the kidney collecting duct". Annu. Rev. Physiol. 60: 199-220.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB.
Restrictions:	For Research Use only

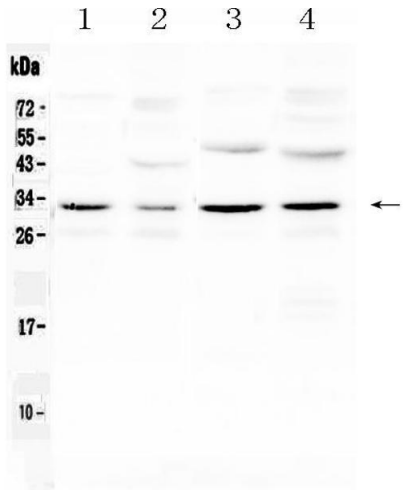
Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	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.

Publications

Product cited in:	Wang, Bu, Zhang, Chen, Zhang, Bao: "Expression pattern of aquaporins in patients with primary nephrotic syndrome with edema." in: **Molecular medicine reports**, Vol. 12, Issue 4, pp. 5625-32, (2016) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of Aquaporin 3 using anti-Aquaporin 3 antibody . 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: mouse kidney tissue lysates, Lane 2: mouse brain tissue lysates, Lane 3: rat kidney tissue lysates, Lane 4: rat brain tissue lysates. 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 3 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/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 3 at approximately 32KD. The expected band size for Aquaporin 3 is at 32KD.