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Datasheet for 600-401-E90

Aquaporin 2 Antibody

Overview

Description:	Anti-Aquaporin 2 (RABBIT) Antibody - 600-401-E90
Item No.:	600-401-E90
Size:	100 µL
Applications:	IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Aquaporins selectively conduct water molecules in and out of the cell, while preventing the passage of ions and other solutes. Known as water channels, they are integral membrane pore proteins. Aquaporin 2 is the vasopressin-regulated water channel of the apical membrane of collecting duct cells. It is located in kidney epithelial cells and usually lies dormant in intracellular vesicle membranes. When it is needed vasopressin binds to the cell surface vasopressin receptor, activating a signaling pathway that cause AQP2 containing vesicles to fuse with the plasma membrane so the AQP2 can be used by the cell. Defects in AQP2 area cause of an autosomal dominant form of nephrogenic diabetes insipidus (NDI).
Synonyms:	AQP2, AQP-CD, AQPCD, WCH CD, Aquaporin-2, AQP-2, ADH water channel, Aquaporin-CD, QP-CD, Collecting duct water channel protein, WCH-CD, Water channel protein for renal collecting duct
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Aqp2
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Aquaporin 2 Antibody was produced from whole rabbit serum prepared by repeated immunizations with a synthetic peptide corresponding to the C-terminal region of rat aquaporin 2.
Purity/Specificity:	Anti-Aquaporin 2 Antibody was purified by affinity chromatography. A BLAST analysis was used to suggest cross-reactivity with Aquaporin 2 from Human, Mouse, and Rat based on 100% homology with the immunizing sequence. Other species not yet tested. Cross-reactivity with Aquaporin 2 from other sources has not been determined. Channels and Transporters research.
Relevant Links:	• NCBI - NP_037041.2 • GeneID - 25386 • UniProtKB - P34080

Application Details

Tested Applications:	IF, IHC, WB
Application Note:	Anti-Aquaporin 2 Antibody is tested for use in WB, IHC-P, and IF microscopy. Expect a band approximately ~28.5kDa on specific lysates. May detect larger glycosylated bands ~35-50kDa. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	1:400
IHC:	1:200
WB:	1:1000 - 1:4000

Formulation

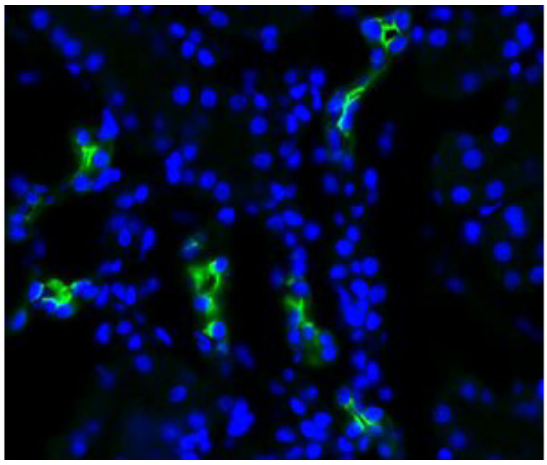
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.09% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

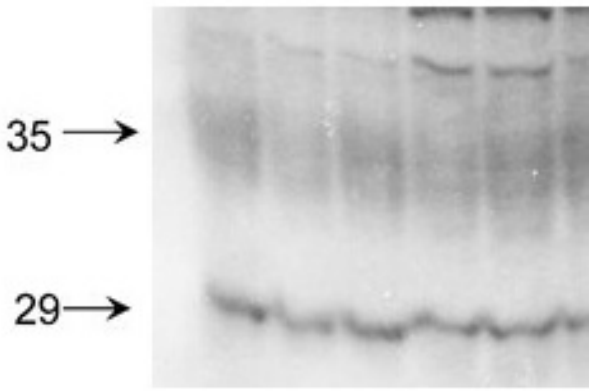
Shipping Condition:	Wet Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Rabbit anti-Aquaporin-2 antibody. Tissue: Rat kidney. Fixation: N/A. Primary Antibody: Aquaporin-2 at 1:200 for 1h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min RT. Localization: Cytoplasmic vesicle membrane. Staining: anti-Aquaporin-2 green fluorescent with DAPI stain merge.



Western Blot
Western Blot of Rabbit anti-Aquaporin-2 Antibody. Lane 1-6: Rat kidney tissues. Load: 20ug per lane. Primary antibody: Aquaporin 2 at 1:2000 for overnight at 4°C. Secondary antibody: Goat anti-rabbit IgG HRP antibody at 1:40,000 for 45 min at RT. Block: 5% Blotto overnight at 4°C. Predicted/Observed size: ~28.5kDa. May detect larger glycosylated bands ~35-50kDa.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.