

Datasheet for ABIN707576
anti-AQP2 antibody (AA 171-271)[Go to Product page](#)**1** Validation**6** Images**2** Publications

Overview

Quantity:	100 µL
Target:	AQP2
Binding Specificity:	AA 171-271
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This AQP2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunocytochemistry (ICC), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human AQP2.
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Dog
Purification:	Purified by Protein A.

Target Details

Target:	AQP2
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Target Details

Alternative Name:	AQP2 (AQP2 Products)
Background:	Synonyms: AQP-CD, WCH-CD, Aquaporin-2, AQP-2, ADH water channel, Aquaporin-CD, Collecting duct water channel protein, Water channel protein for renal collecting duct, AQP2 Background: Forms a water-specific channel that provides the plasma membranes of renal collecting duct with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient.
Gene ID:	359
UniProt:	P41181
Pathways:	Response to Water Deprivation

Application Details

Application Notes:	WB 1:300-5000 ELISA 1:500-1000 FCM 1:20-100 IHC-P 1:200-400 IHC-F 1:100-500 IF(IHC-P) 1:50-200 IF(IHC-F) 1:50-200 IF(ICC) 1:50-200 ICC 1:100-500
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

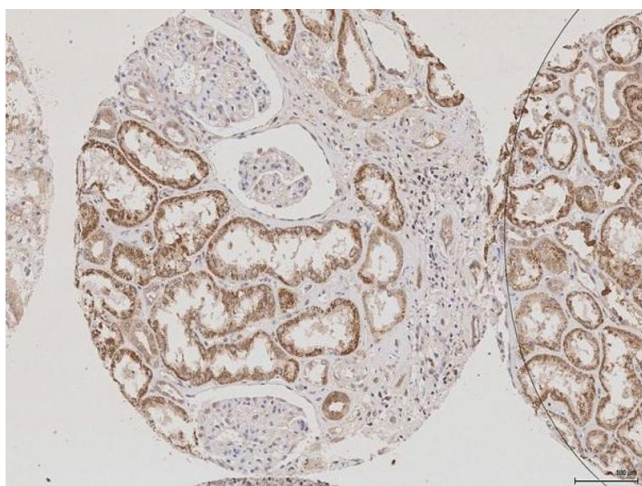
Handling

Expiry Date: 12 months

Publications

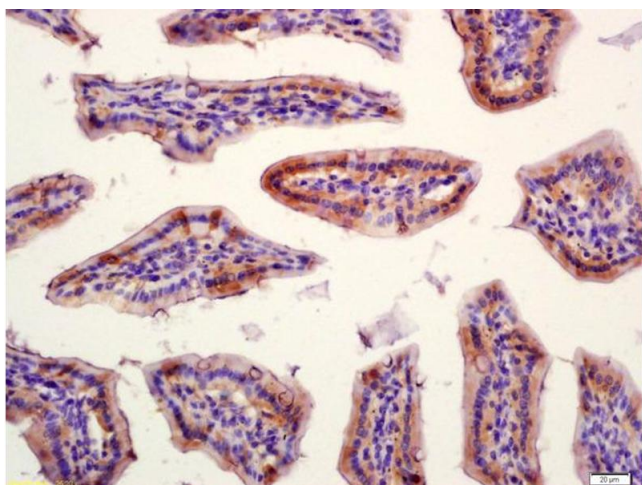
Product cited in: Lazzeri, Angelotti, Peired, Conte, Marschner, Maggi, Mazzinghi, Lombardi, Melica, Nardi, Ronconi, Sisti, Antonelli, Becherucci, De Chiara, Guevara, Burger, Schaefer, Annunziato, Anders, Lasagni et al.: "Endocycle-related tubular cell hypertrophy and progenitor proliferation recover renal function after acute kidney injury. ..." in: **Nature communications**, Vol. 9, Issue 1, pp. 1344, (2018) ([PubMed](#)).

Images



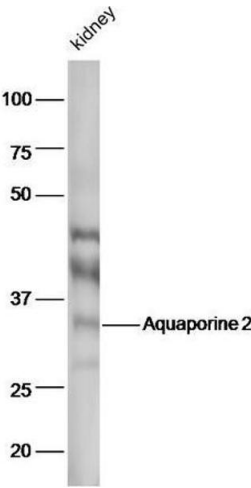
Immunohistochemistry

Image 1. Independently Validated Antibody, image provided by Science Direct, badge number 029457: Formalin-fixed and paraffin embedded human kidney labeled with Anti-AQP2 Polyclonal Antibody, Unconjugated (ABIN707576) at 1:250 followed by conjugation to the secondary antibody and DAB staining



Immunohistochemistry

Image 2. Formalin-fixed and paraffin embedded mouse intestine labeled with Anti-AQP2 Polyclonal Antibody, Unconjugated (ABIN707576) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Western Blotting

Image 3. Mouse kidney lysates probed with Anti-AQP2 Polyclonal Antibody, Unconjugated at 1:5000 90min in 37°C.

Please check the [product details page](#) for more images. Overall 6 images are available for ABIN707576.



Successfully validated (Immunohistochemistry (IHC))

by [Immunohistochemistry Core, NYU Langone](#)

Report Number: 029457

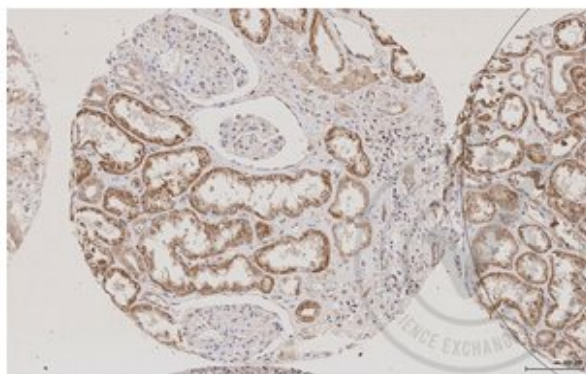
Date: Jan 16 2014

Lot Number:	999994W
Method validated:	Immunohistochemistry (IHC)
Positive Control:	- Human kidney tubules - Human breast ductal epithelium
Negative Control:	- Human kidney glomeruli and stromal tissue - Human breast mesenchymal tissue
Notes:	Strong signal was observed in positive control tissues and not in negative control tissues.
Primary Antibody:	- Antibody: Aquaporin 2 - Catalog number: ABIN707576 - Supplier: Bioss - Supplier number: Bs-4611R - Batch number: 999994W
Secondary Antibody:	- Antibody: Biotinylated goat anti-rabbit/anti-mouse (Kit) - Catalog number: 760-091 - Supplier: Ventana Medical Systems - Lot number: D05923BA
Isotype:	- Antibody: Rabbit IgG isotype control - Catalog number: 790-4795 - Supplier: Ventana Medical Systems - Lot number: C11487
Controls:	<ul style="list-style-type: none"> • Tissues stained came from a human FFPE tissue microarray (12-003d). • Positive control: Ductal epithelium from human kidney and breast tissue (specimen known to contain the target protein). • Negative Control: Stroma/mesenchyme from human kidney and breast tissue (specimen known to not contain the target protein). • Primary antibody isotype control: Ductal epithelium from human kidney and breast tissue (specimen known to contain the target protein) treated with primary antibody isotype control instead of the primary antibody. • Secondary antibody only control: Ductal epithelium from human kidney and breast tissue (specimen known to contain the target protein) treated with secondary antibody only (no primary antibody).
Protocol:	<ul style="list-style-type: none"> • Immunohistochemistry was performed on a Ventana NexES automated platform, instrument manufacturer specific reagents are italicized. • 1. Slides were preheated in convection oven at 60°C for 30 min • 2. Deparaffinization procedure: - 3 changes of Xylene, 5 min each - 3 changes of 100% Ethanol, 3 min each - 3 changes of 95% Ethanol, 3 min each - Rinsed in distilled water, 3 changes

- 3. Heat retrieval procedure - Slides retrieved in 10.0 mM Citrate, pH6.0 in a 1000W microwave oven (~100°C) for 15 min. - Slides were allowed to cool (in citrate) for 30 min. - Slides were washed x 3 in Distilled water
- 4. NexES instrument procedure, iVIEW DAB paraffin protocol (*abridged*): - Slide chamber warmed to 37°C
- 5. Slides rinsed with reaction buffer x3
- 6. *iVIEW Inhibitor (H2O2)* applied and incubated for 4 min
- 7. Slides rinsed with *reaction buffer*
- 8. Antibody Application - Primary antibody diluted 1:250 in PBS (100 µL applied/slide) - Ventana Isotype control applied neat - Slides Incubated overnight at room temperature (~12 hours ~25°C)
- 9. Slides rinsed with *reaction buffer* x3
- 10. *iVIEW Biotinylated IgG* applied and incubated for 8 min
- 11. Slides rinsed with *reaction buffer*
- 12. *iVIEW Streptavidin-Horseradish Peroxidase* applied and incubated for 8 min
- 13. Slides rinsed with *reaction buffer*
- 14. *iVIEW DAB/H2O2* applied and incubated for 8 min
- 15. Slides rinsed with *reaction buffer*
- 16. *iVIEW Copper* applied and incubated for 4 min
- 17. Slides rinsed with *reaction buffer*
- 18. Slides washed in Dawn Detergent/tap water
- 19. Counterstain Procedure - Hematoxylin (Leica 560 MX) 30 seconds - Slides washed in tap water, 1 min - Decolorized (10% Acetic Acid in 70% ethanol), 1 min - Slides washed in tap water, 1 min - Bluing (Austin Clear Ammonia), 1 min - Slides washed in tap water, 1 min
- 20. Dehydration/cover slipping procedure: - 3 changes of 95% Ethanol, 3 min each - 3 changes of 100% Ethanol, 3 min each - 3 changes of Xylene, 5 min each - Mounted with Permount
- 21. Imaging: Leica SCN 400F Whole Slide Scanner with Digital Image Hub and Leica Slidepath software

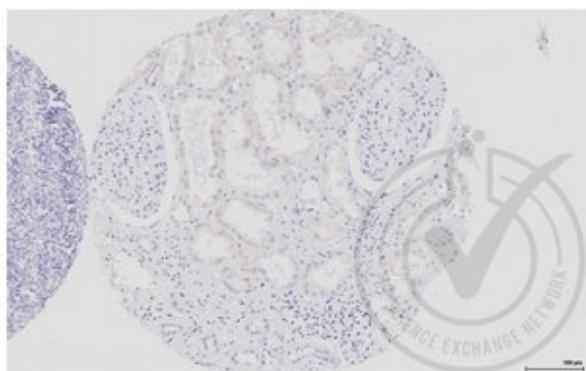
Experimental Notes:

- Deviations from protocol/procedure supplied by manufacturer.
 - Step 1: Heated tissue 60°C for 30 minutes; manufacturer heats for 45 minutes.
 - Step 2: No ethanol wash was performed during deparaffinization; manufacturer includes 1 wash of 80% ethanol for 3 minutes.
 - Step 3.1: Slides heated for 15 minutes; manufacturer provides a range of 15-20 minutes.
 - Step 3.2: Slides cooled for 30 minutes; manufacturer cools for 20 minutes.
 - Step 4: Italicized reagents and incubation time are fixed instrument parameters.
 - Step 5: Secondary species-specific serum block not used; manufacturer blocks with 5% normal goat serum for 2 hours.
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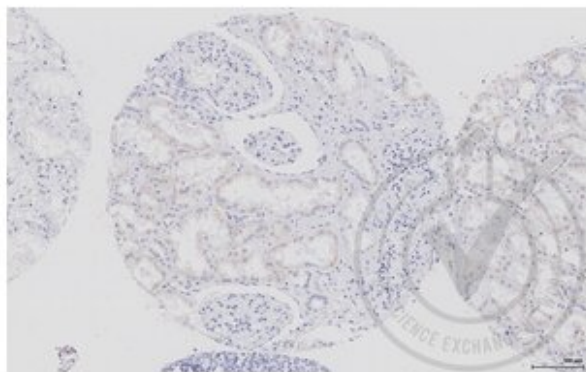
Validation image no. 1 for anti-Aquaporin 2 (Collecting Duct) (AQP2) (AA 171-271) antibody (ABIN707576)

Figure 1: Human kidney stained with AQP2 (brown).



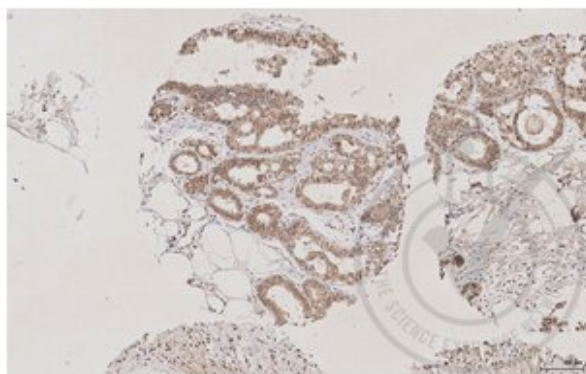
Validation image no. 2 for anti-Aquaporin 2 (Collecting Duct) (AQP2) (AA 171-271) antibody (ABIN707576)

Figure 2. Human kidney stained with isotype control antibody (brown).



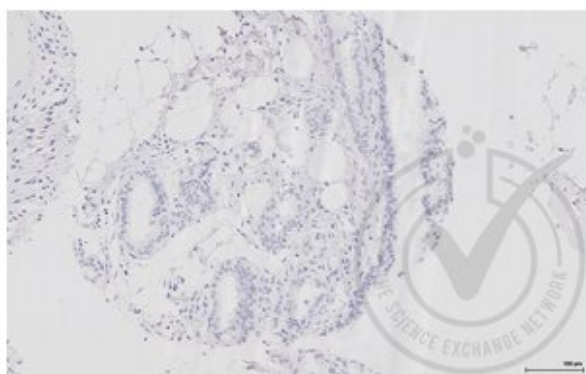
Validation image no. 3 for anti-Aquaporin 2 (Collecting Duct) (AQP2) (AA 171-271) antibody (ABIN707576)

Figure 3: Human kidney stained only with secondary antibody (primary antibody omitted) (brown).



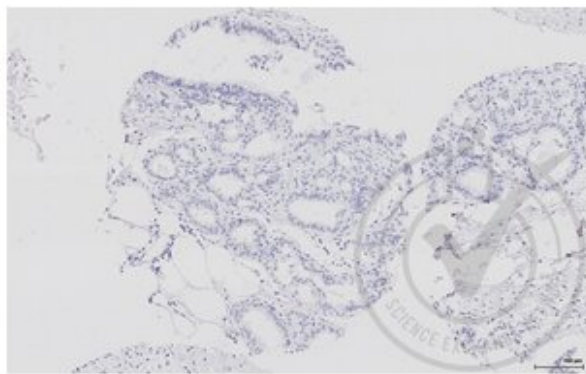
Validation image no. 4 for anti-Aquaporin 2 (Collecting Duct) (AQP2) (AA 171-271) antibody (ABIN707576)

Figure 4: Human breast stained with AQP2 (brown).



Validation image no. 5 for anti-Aquaporin 2 (Collecting Duct) (AQP2) (AA 171-271) antibody (ABIN707576)

Figure 5: Human breast stained with isotype control antibody (brown).



Validation image no. 6 for anti-Aquaporin 2 (Collecting Duct) (AQP2) (AA 171-271) antibody (ABIN707576)

Figure 6: Human breast stained only with secondary antibody (primary antibody omitted) (brown).