



### Anti-Aquaporin 3 antibody ab125219

★★★★★ [5 Abreviews](#) [49 References](#) [6 Images](#)

#### Overview

<b>Product name</b>	Anti-Aquaporin 3 antibody
<b>Description</b>	Rabbit polyclonal to Aquaporin 3
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt (Intra), ICC
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human, African green monkey
<b>Immunogen</b>	Synthetic peptide within Human Aquaporin 3 aa 278-292 (C terminal). The exact sequence is proprietary. Sequence: EENVKLAHVKHKEQI  Database link: <a href="#">Q92482</a> (Peptide available as <a href="#">ab195690</a> ) <div>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a> </div>
<b>Positive control</b>	WB: Mouse and rat kidney tissue lysates. HEK-293 and COS-7 whole cell lysates; IHC-P: Human lung cancer tissue. Mouse and rat kidney tissues; ICC: A431 cells; Flow Cyt (Intra): A431 cells.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservatives: 0.025% Thimerosal (merthiolate), 0.025% Sodium azide Constituents: 2.5% BSA, 0.45% Sodium chloride, 0.1% Dibasic monohydrogen sodium phosphate

<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

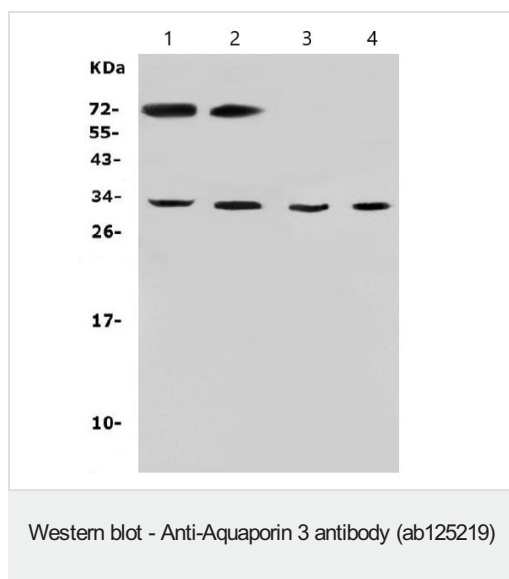
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab125219 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		Use a concentration of 0.1 - 0.5 µg/ml. Predicted molecular weight: 32 kDa.
<b>IHC-P</b>	★★★★★ (1)	Use a concentration of 0.5 - 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
<b>Flow Cyt (Intra)</b>		Use 1-3µg for 10 <sup>6</sup> cells. <b>ab171870</b> - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
<b>ICC</b>		Use a concentration of 2 µg/ml.

## Target

<b>Function</b>	Water channel required to promote glycerol permeability and water transport across cell membranes. Acts as a glycerol transporter in skin and plays an important role in regulating SC (stratum corneum) and epidermal glycerol content. Involved in skin hydration, wound healing, and tumorigenesis. Provides kidney medullary collecting duct with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient. Slightly permeable to urea and may function as a water and urea exit mechanism in antidiuresis in collecting duct cells. It may play an important role in gastrointestinal tract water transport and in glycerol metabolism.
<b>Tissue specificity</b>	Widely expressed in epithelial cells of kidney (collecting ducts) and airways, in keratinocytes, immature dendritic cells and erythrocytes. Isoform 2 is not detectable in erythrocytes at the protein level.
<b>Sequence similarities</b>	Belongs to the MIP/aquaporin (TC 1.A.8) family.
<b>Domain</b>	Aquaporins contain two tandem repeats each containing three membrane-spanning domains and a pore-forming loop with the signature motif Asn-Pro-Ala (NPA).
<b>Cellular localization</b>	Basolateral cell membrane. In collecting ducts of kidney.

## Images



**All lanes :** Anti-Aquaporin 3 antibody (ab125219) at 0.5 µg/ml (overnight at 4°C)

**Lane 1 :** Rat kidney tissue lysate

**Lane 2 :** Mouse kidney tissue lysate

**Lane 3 :** HEK-293 (human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 4 :** COS-7 (African green monkey kidney fibroblast-like cell line) whole cell lysate

Lysates/proteins at 50 µg per lane.

### Secondary

**All lanes :** Goat Anti-rabbit IgG (HRP) for 1.5 hour at room temperature at 1/5000 dilution

Developed using the ECL technique.

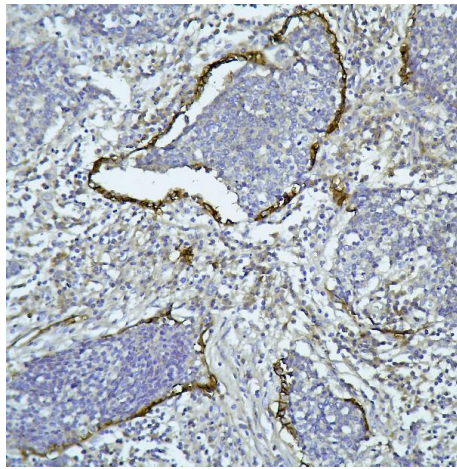
Performed under reducing conditions.

**Predicted band size:** 32 kDa

**Observed band size:** 32 kDa

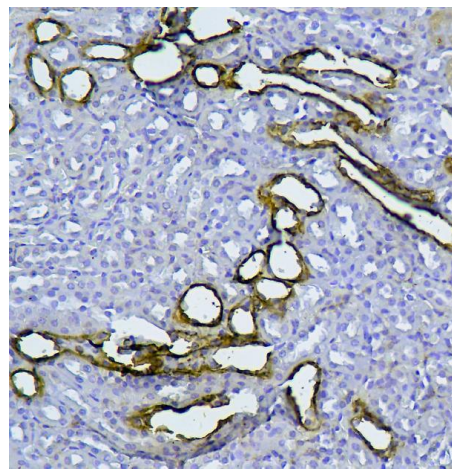
**Additional bands at:** 72 kDa. We are unsure as to the identity of these extra bands.

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. The membrane was then blocked with 5% Non-fat Milk / TBS for 1.5 hours at room temperature followed by incubation with ab125219. The membrane was then washed with TBS-0.1% Tween 3 times for 5 minutes each and probed with a Goat anti-rabbit IgG (HRP) secondary antibody.



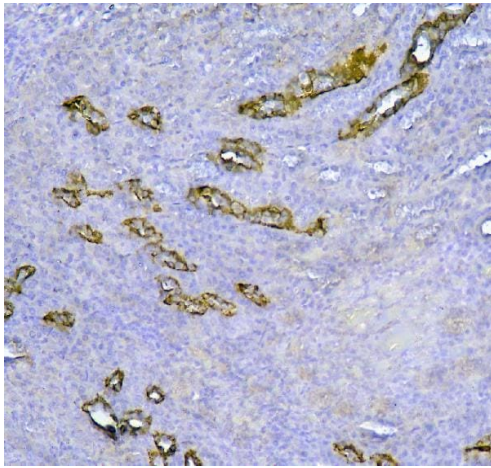
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody (ab125219)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung cancer tissue labeling Aquaporin 3 with ab125219 at 1  $\mu\text{g/mL}$ . Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with ab125219 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) with DAB as the chromogen.



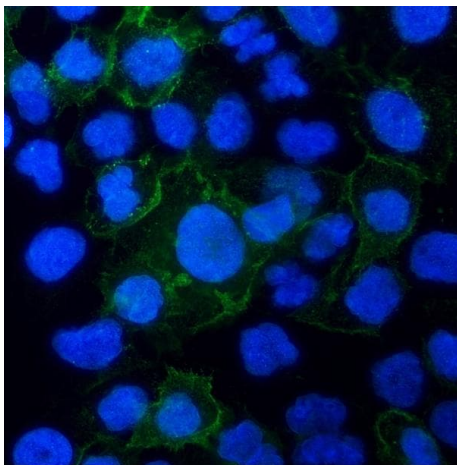
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody (ab125219)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue labeling Aquaporin 3 with ab125219 at 1  $\mu\text{g/mL}$ . Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with ab125219 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) with DAB as the chromogen.



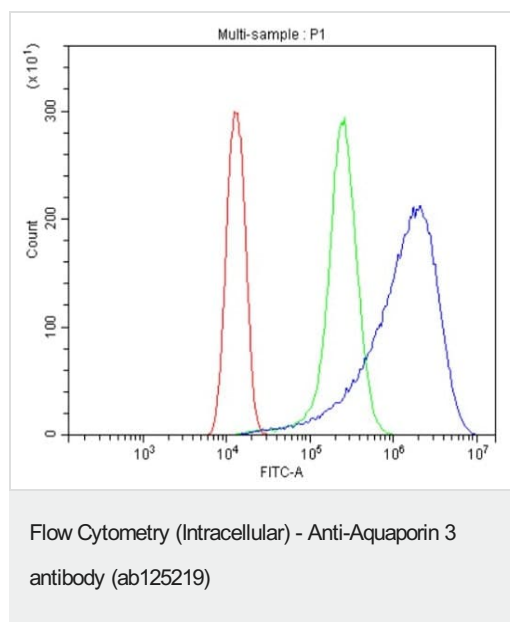
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody (ab125219)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue labeling Aquaporin 3 with ab125219 at 1 µg/mL. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with ab125219 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) with DAB as the chromogen.



Immunocytochemistry - Anti-Aquaporin 3 antibody (ab125219)

Immunocytochemistry analysis of A431 (human epidermoid carcinoma cell line) cells labeling Aquaporin 3 with ab125219 at 2 µg/mL. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum and then incubated with ab125219 overnight at 4°C. DyLight® 488 Conjugated Goat Anti-Rabbit IgG was used as the secondary antibody at 1/100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI and visualized using a fluorescence microscope with filter sets appropriate for the label used.



Overlay histogram showing A431 (human epidermoid carcinoma cell line) cells stained with ab125219 (Blue line). The cells were blocked with 10% normal goat serum and then incubated with rabbit anti-Aquaporin 3 antibody (ab125219, 1 µg/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight® 488 conjugated goat anti-rabbit IgG (5-10 µg/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 µg/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors