

Product datasheet

Anti-Aquaporin 3 antibody [EPR19932] ab215853

Recombinant RabMAb

★★★★★ [3 Abreviews](#) [1 References](#) [7 Images](#)

Overview

Product name	Anti-Aquaporin 3 antibody [EPR19932]
Description	Rabbit monoclonal [EPR19932] to Aquaporin 3
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human kidney, skin, bladder cancer, cervix cancer and skin squamous cell cancer tissues. ICC: A431 (human epidermoid carcinoma epithelial cell)
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19932
Isotype	IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab215853 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
IHC-P	★★★★★ (2)	1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/100.

Target

Function

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.

Tissue specificity

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.

Sequence similarities

Belongs to the MIP/aquaporin (TC 1.A.8) family.

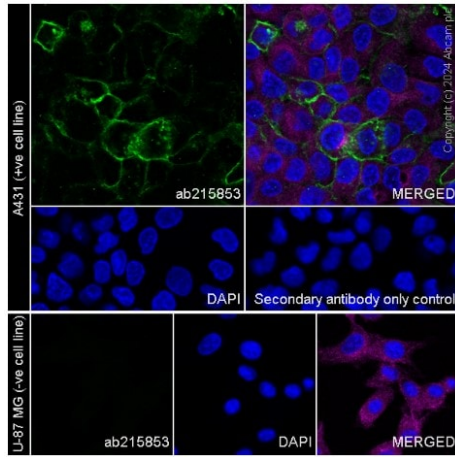
Domain

Aquaporins contain two tandem repeats each containing three membrane-spanning domains and a pore-forming loop with the signature motif Asn-Pro-Ala (NPA).

Cellular localization

Basolateral cell membrane. In collecting ducts of kidney.

Images



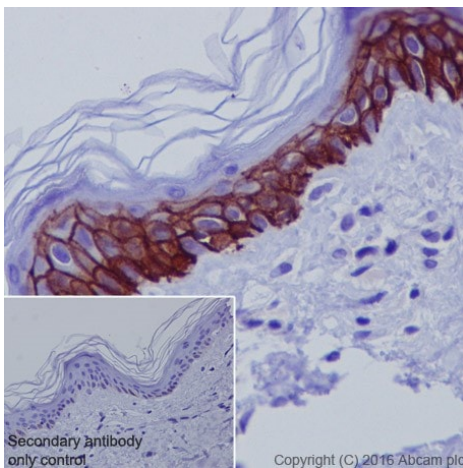
Immunocytochemistry/ Immunofluorescence - Anti-Aquaporin 3 antibody [EPR19932] (ab215853)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A431 (human epidermoid carcinoma epithelial cell) labelling Aquaporin 3 with ab215853 at 1/100 (5.03 µg/ml) dilution (Green). Confocal image showing mainly membranous staining in A431 cell line.

Nuclear DNA was labelled with DAPI (shown in blue). Secondary used was **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/ml). **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (2.5µg/ml) dilution (Magenta).

Negative control: U-87 MG

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody [EPR19932] (ab215853)

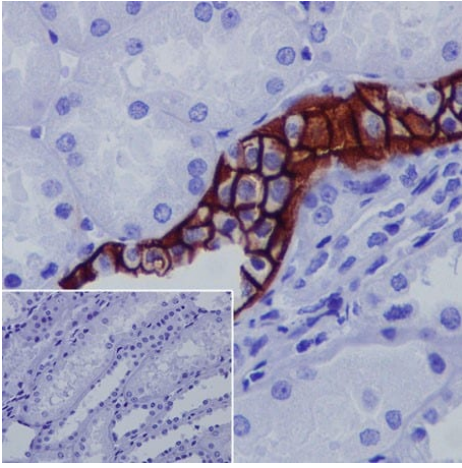
Immunohistochemical analysis of paraffin-embedded human skin tissue labeling Aquaporin 3 with ab215853 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Membranous staining on skin squamous cell is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody [EPR19932] (ab215853)

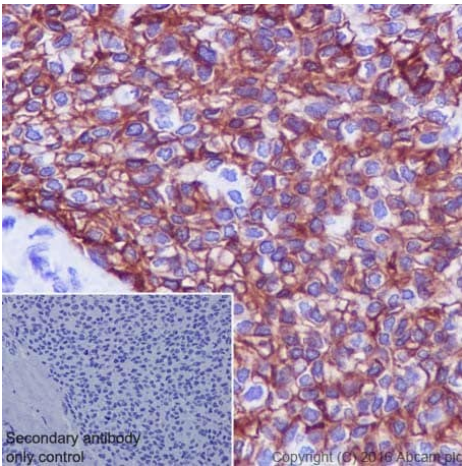
Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling Aquaporin 3 with ab215853 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Membranous staining on kidney collecting ducts is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody [EPR19932] (ab215853)

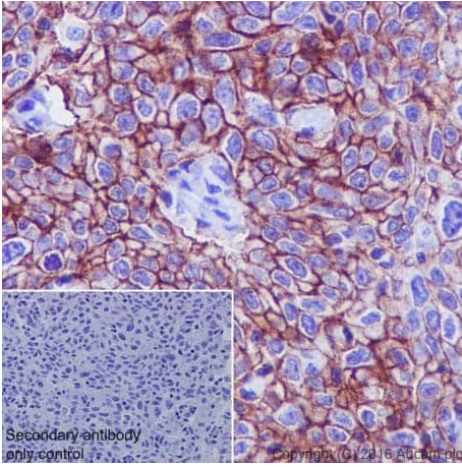
Immunohistochemical analysis of paraffin-embedded human bladder cancer tissue labeling Aquaporin 3 with ab215853 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Membranous staining on bladder cancer is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody [EPR19932] (ab215853)

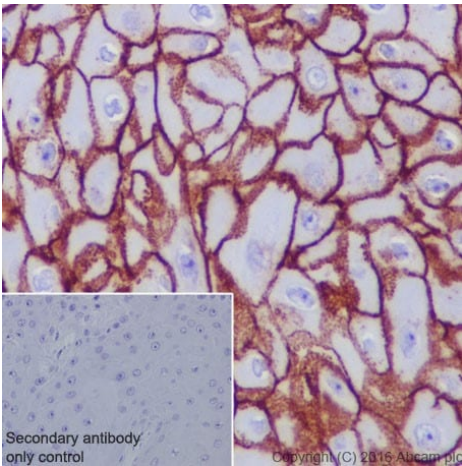
Immunohistochemical analysis of paraffin-embedded human cervix cancer tissue labeling Aquaporin 3 with ab215853 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Membranous staining on cervix cancer is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aquaporin 3 antibody [EPR19932] (ab215853)

Immunohistochemical analysis of paraffin-embedded human skin squamous cell cancer tissue labeling Aquaporin 3 with ab215853 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

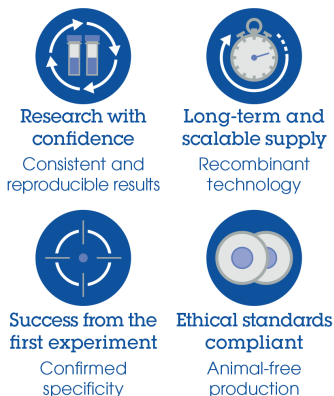
Membranous staining on human skin squamous cell cancer is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Anti-Aquaporin 3 antibody [EPR19932] (ab215853)

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