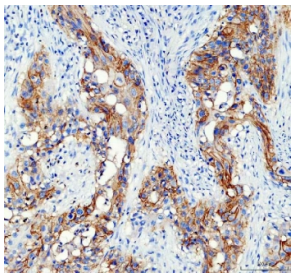
AQP3 Antibody / Aquaporin 3 (R30561)

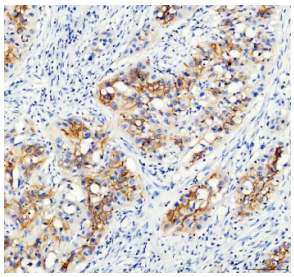
Catalog No.	Formulation	Size
R30561	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q92482
Localization	Cytoplasmic, membranous
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This AQP3 antibody is available for research use only.



IHC staining of FFPE human bladder cancer tissue with AQP3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



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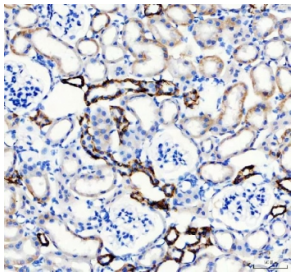
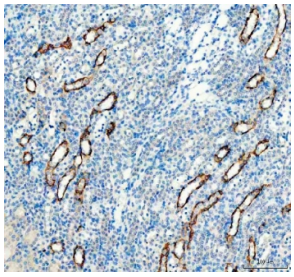


IHC staining of FFPE mouse kidney tissue with AQP3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



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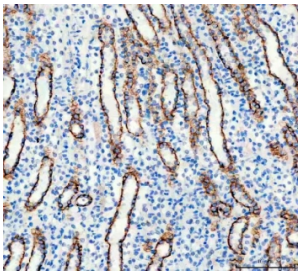
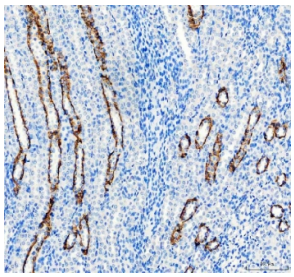


IHC staining of FFPE rat kidney tissue with AQP3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



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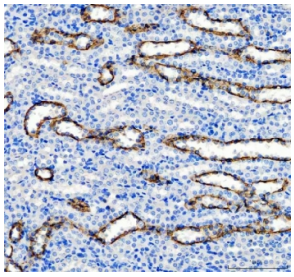

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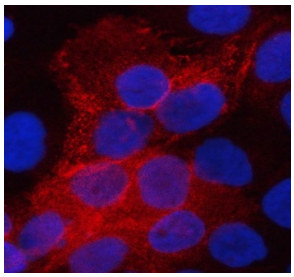
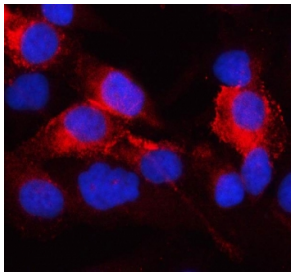
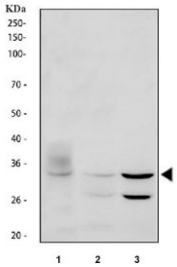


Immunofluorescent staining of FFPE human A431 cells with AQP3 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Immunofluorescent staining of FFPE human HeLa cells with AQP3 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of 1) human HeLa, 2) rat kidney and 3) mouse kidney tissue lysate with AQP3 antibody. Predicted molecular weight ~32 kDa.

Description

Aquaporin 3 is the third member of the major intrinsic protein family. The protein is localized at the basal lateral membranes of collecting duct cells in the kidney. AQP3 appears to exist as a single copy and to comprise 6 exons distributed over 7 kb. The gene is mapped to 9p21-p12 by fluorescence in situ hybridization. The protein works as water-channel and facilitates the transport of nonionic small solutes such as urea and glycerol, albeit to a smaller degree. The results suggested that water channels can be functionally heterogeneous and possess water and solute permeation mechanisms. By Western blot analysis and immunofluorescence microscopy of epidermis, Sougrat et al.(2002) showed strong expression of an approximately 33-kD glycosylated AQP3 protein in keratinocyte plasma membranes, one layer below the unstained stratum corneum(SC). It provides a short circuit for water, or water-clamp, between the base of the epidermis and the SC in order to maintain a constant H2O content and to prevent the formation of a continuous water gradient across the epidermis below the SC.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the AQP3 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human Aquaporin 3 (EENVKLAHVKHKEQI) was used as the immunogen for this AQP3 antibody.

Storage

After reconstitution, the AQP3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.