ARG40567
anti-Aquaporin 2 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Aquaporin 2
Tested Reactivity	Hu, Ms, Rat
Predict Reactivity	Hm
Tested Application	FACS, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Aquaporin 2
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 241-271 of Human Aquaporin 2. (EPDTDWEEREVRRRQSVELHSPQSLPRGTKA)
Conjugation	Un-conjugated
Alternate Names	Aquaporin-2; Aquaporin-CD; AQP-2; ADH water channel; Collecting duct water channel protein; Water channel protein for renal collecting duct; AQP-CD; WCH-CD

Application Instructions

Application table

Application	Dilution
FACS	1 - 3 µg/10^6 cells
IHC-P	0.5 - 1 µg/ml
WB	0.1 - 0.5 µg/ml

Application Note: IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

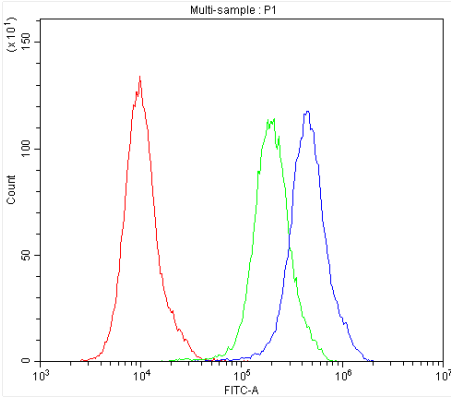
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated

	freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

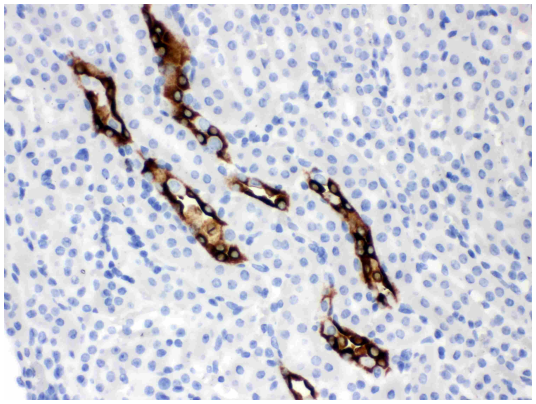
Gene Symbol	AQP2
Gene Full Name	aquaporin 2 (collecting duct)
Background	This gene encodes a water channel protein located in the kidney collecting tubule. It belongs to the MIP/aquaporin family, some members of which are clustered together on chromosome 12q13. Mutations in this gene have been linked to autosomal dominant and recessive forms of nephrogenic diabetes insipidus. [provided by RefSeq, Oct 2008]
Function	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. [UniProt]
Calculated Mw	29 kDa
PTM	Ser-256 phosphorylation is necessary and sufficient for expression at the apical membrane. Endocytosis is not phosphorylation-dependent. [UniProt]
Cellular Localization	Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Note=Shuttles from vesicles to the apical membrane. Vasopressin-regulated phosphorylation is required for translocation to the apical cell membrane. PLEKHA8/FAPP2 is required to transport AQP2 from the TGN to sites where AQP2 is phosphorylated. [UniProt]

Images



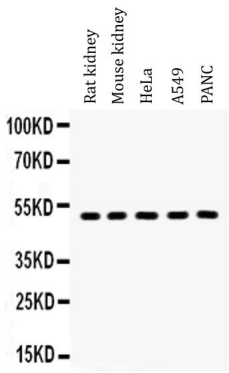
ARG40567 anti-Aquaporin 2 antibody FACS image

Flow Cytometry: PC-3 cells were blocked with 10% normal goat serum and then stained with ARG40567 anti-Aquaporin 2 antibody (blue) at 1 µg/10^6 cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was Rabbit IgG (1 µg/10^6 cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



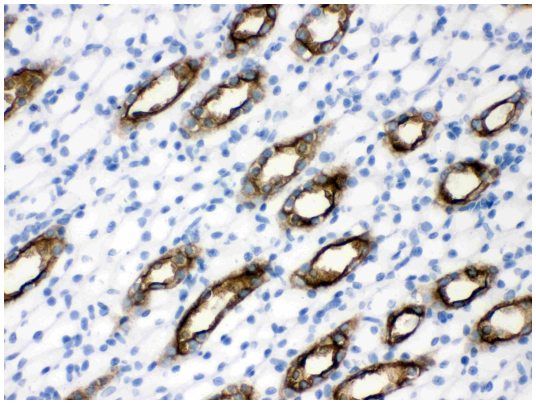
ARG40567 anti-Aquaporin 2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse kidney tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG40567 anti-Aquaporin 2 antibody at 1 µg/ml, overnight at 4°C.



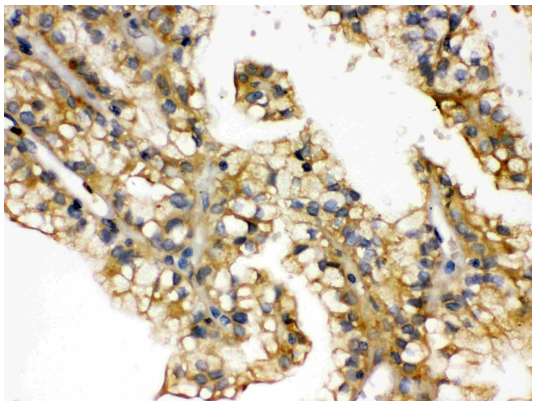
ARG40567 anti-Aquaporin 2 antibody WB image

Western blot: 50 µg of samples under reducing conditions. Rat kidney, Mouse kidney, HeLa, A549 and PANC whole cell lysates stained with ARG40567 anti-Aquaporin 2 antibody at 0.5 µg/ml, overnight at 4°C.



ARG40567 anti-Aquaporin 2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat kidney tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG40567 anti-Aquaporin 2 antibody at 1 µg/ml, overnight at 4°C.



ARG40567 anti-Aquaporin 2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human renal cancer tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG40567 anti-Aquaporin 2 antibody at 1 µg/ml, overnight at 4°C.