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AQP2

Purified Mouse Monoclonal Antibody
Catalog # AO2639a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P41181
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5B6B12
Isotype	Mouse IgG1
Calculated MW	28837
Immunogen	Purified recombinant fragment of human AQP2 (AA: 149-271) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	359
Other Names	AQP-CD; WCH-CD
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AQP2 is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AQP2 (HGNC:634)
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 (PubMed:15509592, PubMed:7510718, PubMed:7524315, PubMed:8140421, PubMed:8584435). Plays an essential role in renal water homeostasis (PubMed:15509592, PubMed:7524315, PubMed:8140421). Could also be permeable to glycerol (PubMed:8584435).
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Basolateral cell

membrane {ECO:0000250|UniProtKB:P34080}; Multi-pass membrane protein. 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 (PubMed:15509592). Vasopressin-regulated phosphorylation is required for translocation to the apical cell membrane (PubMed:15509592). PLEKHA8/FAPP2 is required to transport AQP2 from the TGN to sites where AQP2 is phosphorylated (By similarity) {ECO:0000250|UniProtKB:P34080, ECO:0000269|PubMed:15509592}

Tissue Location

Expressed in collecting tubules in kidney medulla (at protein level) (PubMed:7510718). Detected in kidney (PubMed:7510718).

References

1.Reprod Fertil Dev. 2016 Mar;28(4):499-506.2.J Transl Med. 2014 May 19;12:133.

Images

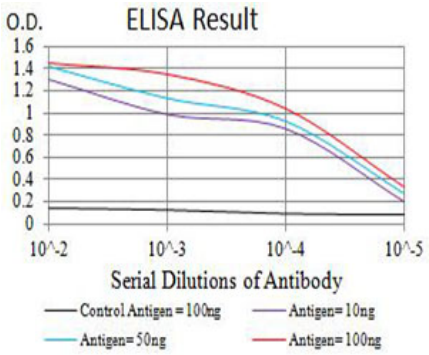

Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

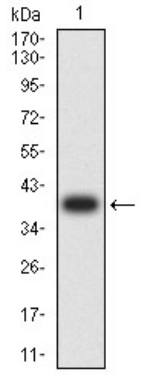

Figure 2:Western blot analysis using AQP2 mAb against human AQP2 (AA: 149-271) recombinant protein. (Expected MW is 39.4 kDa)

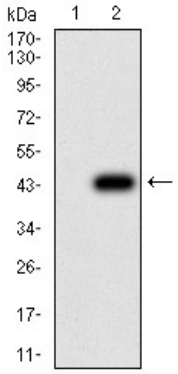

Figure 3:Western blot analysis using AQP2 mAb against HEK293 (1) and AQP2 (AA: 149-271)-hIgGFc transfected HEK293 (2) cell lysate.