

# AQP2

Purified Mouse Monoclonal Antibody

Catalog # AO2638a

## Product Information

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|--------------------------|---------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC, ICC, E                                                                 |
| <b>Primary Accession</b> | <a href="#">P41181</a>                                                          |
| <b>Reactivity</b>        | Human                                                                           |
| <b>Host</b>              | Mouse                                                                           |
| <b>Clonality</b>         | Monoclonal                                                                      |
| <b>Clone Names</b>       | 7H8B5                                                                           |
| <b>Isotype</b>           | Mouse IgG1                                                                      |
| <b>Calculated MW</b>     | 28837                                                                           |
| <b>Immunogen</b>         | Purified recombinant fragment of human AQP2 (AA: 149-271) expressed in E. Coli. |
| <b>Formulation</b>       | Purified antibody in PBS with 0.05% sodium azide                                |

## Additional Information

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| <b>Gene ID</b>     | 359                                                                                                                                      |
| <b>Other Names</b> | AQP-CD; WCH-CD                                                                                                                           |
| <b>Dilution</b>    | WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000                                                                                  |
| <b>Storage</b>     | 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. |
| <b>Precautions</b> | AQP2 is for research use only and not for use in diagnostic or therapeutic procedures.                                                   |

## Protein Information

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| <b>Name</b>              | AQP2 ( <a href="#">HGNC:634</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Function</b>          | 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: <a href="#">15509592</a> , PubMed: <a href="#">7510718</a> , PubMed: <a href="#">7524315</a> , PubMed: <a href="#">8140421</a> , PubMed: <a href="#">8584435</a> ). Plays an essential role in renal water homeostasis (PubMed: <a href="#">15509592</a> , PubMed: <a href="#">7524315</a> , PubMed: <a href="#">8140421</a> ). Could also be permeable to glycerol (PubMed: <a href="#">8584435</a> ). |
| <b>Cellular Location</b> | 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

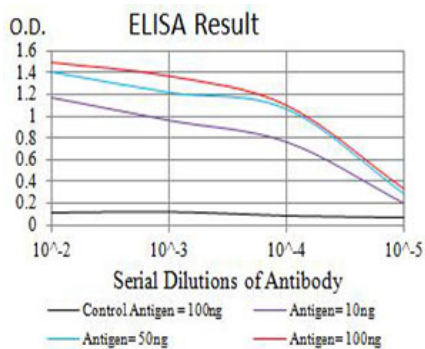


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

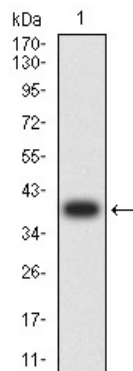


Figure 2:Western blot analysis using AQP2 mAb against human AQP2 (AA: 149-271) recombinant protein. (Expected MW is 39.4 kDa)

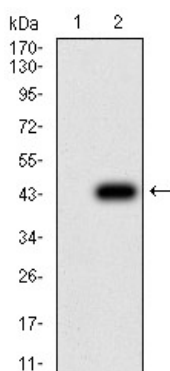


Figure 3:Western blot analysis using AQP2 mAb against HEK293 (1) and AQP2 (AA: 149-271)-hIgGfC transfected HEK293 (2) cell lysate.

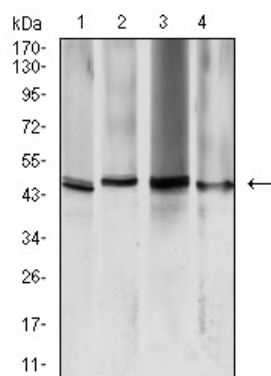


Figure 4: Western blot analysis using AQP2 mouse mAb against K562 (1), HeLa (2), HCT116 (3), and SW480 (4) cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.