

# Anti-Aquaporin 0 Picoband Antibody

Catalog # ABO12497

## Product Information

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|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB                                                                                                                 |
| <b>Primary Accession</b> | <a href="#">P30301</a>                                                                                             |
| <b>Host</b>              | Rabbit                                                                                                             |
| <b>Reactivity</b>        | Human, Rat                                                                                                         |
| <b>Clonality</b>         | Polyclonal                                                                                                         |
| <b>Format</b>            | Lyophilized                                                                                                        |
| <b>Description</b>       | Rabbit IgG polyclonal antibody for Lens fiber major intrinsic protein(MIP) detection. Tested with WB in Human;Rat. |

**Reconstitution** Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

## Additional Information

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| <b>Gene ID</b>                  | 4284                                                                                                                                                                                                          |
| <b>Other Names</b>              | Lens fiber major intrinsic protein, Aquaporin-0, MIP26, MP26, MIP, AQP0                                                                                                                                       |
| <b>Calculated MW</b>            | 28122                                                                                                                                                                                                         |
| <b>Application Details</b>      | Western blot, 0.1-0.5 µg/ml, Rat, Human                                                                                                                                                                       |
| <b>Subcellular Localization</b> | Cell membrane ; Multi- pass membrane protein . Cell junction, gap junction .                                                                                                                                  |
| <b>Tissue Specificity</b>       | Major component of lens fiber gap junctions.                                                                                                                                                                  |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                     |
| <b>Protein Name</b>             | Lens fiber major intrinsic protein                                                                                                                                                                            |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.                                                                                                                                           |
| <b>Immunogen</b>                | A synthetic peptide corresponding to a sequence at the C-terminus of human Aquaporin 0 (232-263aa ERLSVLKGA KP DVSNGQPEVTGEPVELNTQAL), different from the related mouse and rat sequences by six amino acids. |
| <b>Purification</b>             | Immunogen affinity purified.                                                                                                                                                                                  |
| <b>Cross Reactivity</b>         | No cross reactivity with other proteins.                                                                                                                                                                      |
| <b>Storage</b>                  | At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.                            |

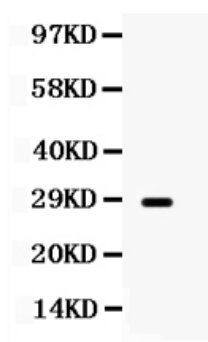
## Protein Information

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|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name              | MIP ( <a href="#">HGNC:7103</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Synonyms          | AQP0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Function          | Aquaporins form homotetrameric transmembrane channels, with each monomer independently mediating water transport across the plasma membrane along its osmotic gradient (PubMed: <a href="#">11001937</a> , PubMed: <a href="#">24120416</a> ). Specifically expressed in lens fiber cells, this aquaporin is crucial for maintaining lens water homeostasis and transparency. Beyond water permeability, it also acts as a cell-to-cell adhesion molecule, forming thin junctions between lens fiber cells that are essential for maintaining the ordered structure and transparency of the lens (PubMed: <a href="#">24120416</a> ). |
| Cellular Location | Cell membrane; Multi-pass membrane protein {ECO:0000250 UniProtKB:Q6J8I9}. Cell junction {ECO:0000250 UniProtKB:Q6J8I9}. Note=Localizes to thin cell-cell junctions in lens fiber cells. {ECO:0000250 UniProtKB:Q6J8I9}                                                                                                                                                                                                                                                                                                                                                                                                               |
| Tissue Location   | Expressed in the cortex and nucleus of the retina lens (at protein level) (PubMed:30790544). Major component of lens fiber gap junctions (PubMed:24120416).                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Background

Lens fiber major intrinsic protein, also called MIP26 or MP26, is a protein that in humans is encoded by the MIP gene. MIP is a member of the water-transporting aquaporins as well as the original member of the MIP family of channel proteins. Using 2-color fluorescence in situ hybridization on high-resolution R-banded chromosomes and human genomic DNA clones for MIP as probes, this gene was found that located in close proximity in region 12q13. MIP plays a crucial role in the development of a transparent eye lens. This gene may be responsible for regulating the osmolarity of the lens and interactions between homotetramers from adjoining membranes may stabilize cell junctions in the eye lens core.

## Images



Anti- Aquaporin 0 Picoband antibody, ABO12497,  
Western blottingAll lanes: Anti Aquaporin 0 (ABO12497)  
at 0.5ug/mlWB: Rat Eye Ball Tissue Lysate at  
50ugPredicted bind size: 28KDObserved bind size: 28KD

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