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Aquaporin 0 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51342

Product Information

Application	WB
Primary Accession	P30301
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28122

Additional Information

Gene ID	4284
Other Names	Lens fiber major intrinsic protein, Aquaporin-0, MIP26, MP26, MIP, AQP0
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	MIP (HGNC:7103)
Synonyms	AQP0
Function	Aquaporins form homotetrameric transmembrane channels, with each monomer independently mediating water transport across the plasma membrane along its osmotic gradient (PubMed:11001937, PubMed:24120416). 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:24120416).
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

Water channel. Channel activity is down-regulated by CALM when cytoplasmic Ca(2+) levels are increased. May be responsible for regulating the osmolarity of the lens. Interactions between homotetramers from adjoining membranes may stabilize cell junctions in the eye lens core (By similarity).

References

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Geyer D.D.,et al.Am. J. Ophthalmol. 141:761-763(2006).
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