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AQP0 Polyclonal Antibody

Catalog # AP68469

Product Information

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

Additional Information

Gene ID	4284
Other Names	MIP; AQP0; Lens fiber major intrinsic protein; Aquaporin-0; MIP26; MP26
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications. IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

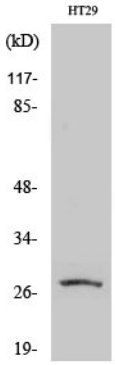
Name	MIP (HGNC:7103)
Synonyms	AQP0
Function	Aquaporins form homotetrameric transmembrane channels, with each monomer independently mediating water transport across the plasma membrane along its osmotic gradient (PubMed:11001937, PubMed:24120416). Specifically expressed in lens fiber cells, this aquaporin 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 (PubMed: 24120416). 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). Plays a role in cell-to-cell adhesion and facilitates gap junction coupling (PubMed:24120416).

Images



Western Blot analysis of various cells using AQP0 Polyclonal Antibody