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Anti-Aquaporin 0 Antibody

Catalog # ABO11416

Product Information

Application	WB
Primary Accession	P09011
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Lens fiber major intrinsic protein(MIP) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	25480
Other Names	Lens fiber major intrinsic protein, Aquaporin-0, MIP26, MP26, Mip
Calculated MW	28209
Application Details	Western blot, 0.1-0.5 □g/ml, Mouse, Human, Rat
Subcellular Localization	Cell membrane; Multi-pass membrane protein. Cell junction, gap junction.
Tissue Specificity	Major component of lens fiber gap junctions.
Source	Eukaryota
Protein Name	Lens fiber major intrinsic protein
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Aquaporin 0(246-263aa NGQPEGTGEPVELKTQAL), identical to the related rat sequence, and different from the related human sequence by two amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, 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.

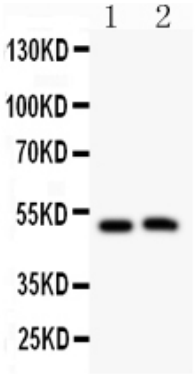
Protein Information

Name	Mip {ECO:0000312|RGD:3090}
Function	Aquaporins form homotetrameric transmembrane channels, with each monomer independently mediating water transport across the plasma membrane along its osmotic gradient. 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.
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:P30301}; 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}

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- MIP antibody, ABO11416, Western blottingAll lanes: Anti MIP (ABO11416) at 0.5ug/mlLane 1: Mouse Spleen Tissue Lysate at 50ugLane 2: Mouse Intestine Tissue Lysate at 50ugPredicted bind size: 28KDObserved bind size: 50KD