



Rabbit Anti-AQP0 antibody

SL6661R

Product Name:	AQP0
Chinese Name:	水Channel protein0抗体
Alias:	AQP 0; AQP0; Aquaporin; Aquaporin0; Lens fiber major intrinsic protein; LIM 1; LIM1; LIM-1; Major intrinsic protein 26kD; Major intrinsic protein of lens fiber; MIP 26; MIP; MIP26; MP 26; MP26; MIP HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Horse,Rabbit,Sheep,Guinea Pig,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	29kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human AQP0:21-120/263<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Water is a critical component of all living cells. Interestingly, tissue membranes show a great degree of water permeability. Mammalian red cells, renal proximal tubules, and descending thin limb of Henle are extraordinarily permeable to water. Water crosses hydrophobic plasma membranes either by simple diffusion or through a facilitative

transport mechanism mediated by special protein aquaporins. Aquaporin 0 or MIP26 (major intrinsic protein 26kD), and Aquaporin 1 has been the foundation of the growing family of aquaporins. The lens specific Aquaporin 0 represents up to 80% of total lens membrane protein. Defects in Aquaporin 0 are a cause of autosomal recessive congenital cataract. The lens opacity mutation (LOP) is an AA substitution that inhibits targeting of MIP to the cell membrane. Human Aquaporin 0 is a 263 amino acid transmembrane protein belonging to the MIP family. Aquaporin families of proteins are predicted to contain six transmembrane domains. The N and C terminus are predicted to be cytoplasmic.

Function:

Water channel. 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.

Subunit:

Homotetramer. Homooctamer formed by head-to-head interaction between homotetramers from adjoining membranes. During early stages of lens development, interacts through its C-terminal region with Cx56 and GJA8/Cx45.6.

Subcellular Location:

Cell membrane; Multi-pass membrane protein. Cell junction, gap junction.

Tissue Specificity:

Major component of lens fiber gap junctions.

Similarity:

Contains 1 homeobox DNA-binding domain.
Contains 2 LIM zinc-binding domains.

SWISS:

P30301

Gene ID:

4284

Database links:

[Entrez Gene: 4284](#) Human

[Entrez Gene: 17339](#) Mouse

[Entrez Gene: 25480](#) Rat

[Omim: 154050](#) Human

[SwissProt: P30301](#) Human

[SwissProt: P51180](#) Mouse

[SwissProt: P09011](#) Rat

[Unigene: 574026](#) Human

[Unigene: 31625](#) Mouse

[Unigene: 396469](#) Mouse

[Unigene: 23532](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

www.sunlongbiotech.com