

Product datasheet for **AP20629PU-M**

Aquaporin 0 (MIP) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on Paraffin Sections: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of AQP0 protein. (region surrounding Cys144)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity-Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~28 kDa
Gene Name:	major intrinsic protein of lens fiber
Database Link:	<u>Entrez Gene 17339 Mouse</u> <u>Entrez Gene 25480 Rat</u> <u>Entrez Gene 4284 Human</u> <u>P30301</u>



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Background:

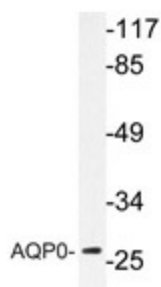
Aquaporins (AQPs) are a large family of integral membrane channel proteins that facilitate the transport of water through the cell membrane. Aquaporins are widely distributed and are involved in renal water absorption, generation of pulmonary secretions, lacrimation and the secretion and reabsorption of cerebrospinal fluid and aqueous humor. AQP0 is the most abundant endogenous protein in the plasma membrane of lens fiber cells where it functions not only as a water pore, but it is also involved in fiber-fiber adhesion and is crucial for fiber cell structure and organization. AQP0 contains an additional pore constriction, not seen in any other aquaporin structures, which may be responsible for pore gating. The closed AQP0 pore holds just three water molecules, which are spaced too far apart to form hydrogen bonds with each other. The C-terminal domain of AQP0 undergoes extensive post-translational modification, including many truncations, during lens aging due to the actions of m-Calpain, proteases or non-enzymatic mechanisms. These truncation sites may be involved in the development of cataracts.

Synonyms:

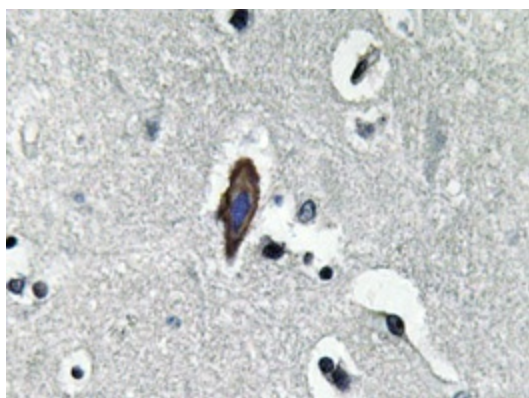
MP26, MIP, MIP26

Protein Families:

Druggable Genome, Transmembrane

Product images:


Western blot analysis of [AP20629PU-N] AQP0 antibody (Cat.-No.: [AP20629PU-N]) in extracts from HT-29 cells.



Immunohistochemistry analyzes of [AP20629PU-N] AQP0 antibody (Cat.-No.: [AP20629PU-N]) in paraffin-embedded human brain tissue.