

Product datasheet for **TA329019**

Aqp7 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide corresponding to amino acid residues 7-24 of rat AQP-7. Intracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% Na ₃ N.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	aquaporin 7
Database Link:	NP_062030 Entrez Gene 11832 Mouse Entrez Gene 29171 Rat P56403



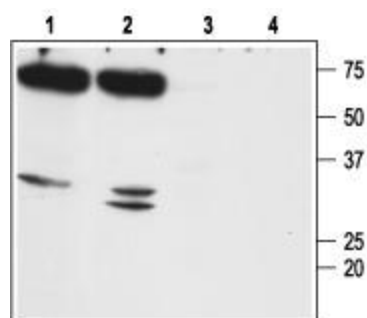
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Background:

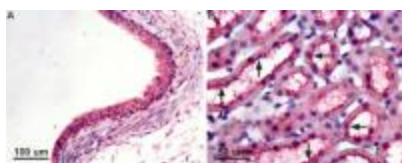
Aquaporin 7 (AQP-7) belongs to a family of membrane proteins that allow passage of water and certain other solutes through biological membranes. The family is composed of 13 members (AQP-0 to AQP-12). Little is known about the function of the two newest members, AQP-11 and AQP-12. The aquaporins can be divided into two functional groups based on their permeability characteristics: the aquaporins that are only permeated by water and the aquaglyceroporins that are permeated by water and other small solutes such as glycerol. This last group includes AQP-7, AQP-3, AQP-9 and AQP-10. The proteins present a conserved structure of six transmembrane domains with intracellular N- and C-termini. The functional channel is a tetramer but each subunit has a separate pore and therefore the functional channel unit, contains four pores. AQP-7 is expressed in ovary, testis, kidney and adipose tissue. The function of AQP-7 in adipose tissue attracted much interest as mice deficient in AQP-7 developed adult-onset obesity and type 2 diabetes. AQP-7 modulates adipocyte glycerol permeability thereby controlling triglyceride accumulation and fat cell size

Synonyms:

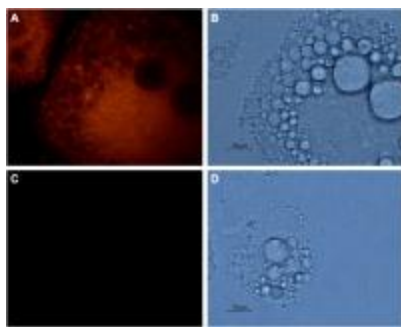
AQP-7; AQP7L; AQP9; AQPap; Aquaporin-7-like; MGC149555; MGC149556

Product images:

Western blot analysis of mouse (lanes 1 and 3) and rat (lanes 2 and 4) kidney membranes: 1, 2. Anti-Aquaporin 7 antibody, (1:500). 3, 4. Anti-Aquaporin 7 antibody, preincubated with the control peptide antigen.



Expression of Aquaporin 7 in rat kidney. Immunohistochemical staining of paraffin-embedded rat kidney sections using Anti-Aquaporin 7 antibody, (1:100). A. In the minor calyx, Aquaporin 7 staining (deep red) is specific for epithelial cells of the uroepithelium B. In the cortical labyrinth, Aquaporin 7 staining is specific for renal tubules while the stronger staining is evident in the brush border (blue arrows). Hematoxylin is used as the counterstain.



Expression of Aquaporin 7 in rat adipocytes. Immunocytochemical staining of 3T3-L1 adipocytes using Anti-Aquaporin 7 antibody, (1:800), followed by goat anti-rabbit-AlexaFluor-555 secondary antibody (red) (A). C. Anti-Aquaporin 7 antibody, preincubated with the control peptide antigen followed by goat-anti-rabbit-AlexaFluor-555 secondary antibody. B., D. show visible light images of the adipocytes shown on (A) and (C) respectively.