

Aquaporin-1 passively transports water in- to cell

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Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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Literature references

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics*, 18, 142. [↗](#)

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467. [↗](#)

Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res*, 46, D649-D655. [↗](#)

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Reactome database release: 88

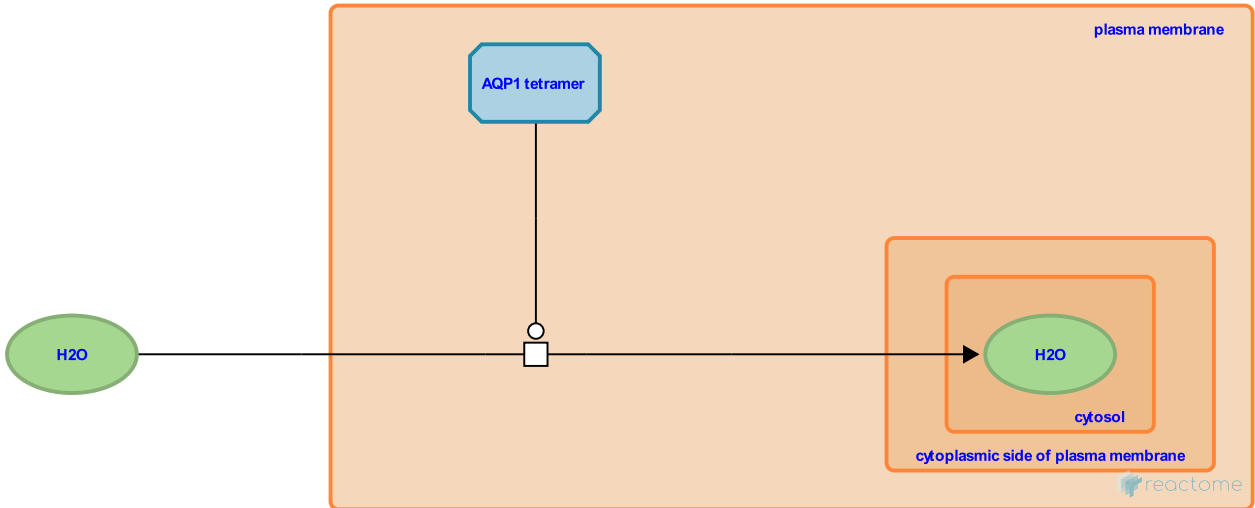
This document contains 1 reaction ([see Table of Contents](#))

Aquaporin-1 passively transports water into cell ↗

Stable identifier: R-HSA-432010

Type: transition

Compartments: plasma membrane, cytosol, extracellular region



Aquaporin-1 (AQP1) passively transports water across the plasma membrane according to the osmotic gradient. In the kidney AQP1 is expressed in endothelial cells of the vasa recta, the proximal tubule, and thin descending limb of Henle, where it functions to recover water from filtrate during urine formation. AQP1 is expressed in many other tissues, such as red blood cells, pancreas, and choroid plexus. AQP1 plays a role in forming cerebrospinal fluid.

Literature references

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Editions

2009-08-07	Authored, Edited	May, B.
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