

AQP4 Protein, Human (His-SUMO)

Cat. No.:	HY-P72087
Synonyms:	AQP 4; AQP-4; AQP4; AQP4_HUMAN; Aquaporin type 4; Aquaporin-4; Aquaporin4; HMIWC 2; HMIWC2; Mercurial insensitive water channel; Mercurial-insensitive water channel; MGC22454; MIWC; WCH 4; WCH4
Species:	Human
Source:	E. coli
Accession:	P55087 (C253-V323)
Gene ID:	361
Molecular Weight:	Approximately 27 kDa

PROPERTIES

AA Sequence	C P D V E F K R R F K E A F S K A A Q Q T K G S Y M E V E D N R S Q V E T D D L I L K P G V V H V I D V D R G E E K K G K D Q S G E V L S S V
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of PBS, 6% Trehalose, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	AQP4, a water-specific channel, is instrumental in maintaining brain water homeostasis and facilitating glymphatic solute transport. It plays a crucial role in regulating the exchange of water across the blood-brain interface, influencing cerebrospinal fluid influx into the brain cortex and parenchyma through paravascular spaces surrounding penetrating arteries. Additionally, AQP4 is essential for the proper drainage of interstitial fluid along paravenous pathways, contributing to the normal clearance of solutes, including soluble beta-amyloid peptides derived from APP, from the brain interstitial fluid. While redundant in urinary water homeostasis and concentrating ability, AQP4 forms homotetramers, with the tetramers capable of organizing into oligomeric arrays of varying sizes in membranes. This oligomerization can facilitate cell-cell adhesion through interactions between AQP4 arrays in adjacent cells. AQP4 is also part of a complex involving MLC1, TRPV4, HEPACAM, and ATP1B1, highlighting its role within a larger molecular network.
-------------------	---

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA