AQP5 Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702217
Synonyms:	Aquaporin-5; AQP-5
Species:	Human
Source:	E. coli Cell-free
Accession:	P55064 (M1-R265)
Gene ID:	362
Molecular Weight:	31.1 kDa

PROPERTIES

AA Sequence	M K K E V C S V A F L K A V F A E F L A T L I F V F F G L G S A L K W P S A L P T I L Q I A L A F G L A I G T L A Q A L G P V S G G H I N P A I T L A L L V G N Q I S L L R A F F Y V A A Q L V G A I A G A G I L Y G V A P L N A R G N L A V N A L N N N T T Q G Q A M V V E L I L T F Q L A L C I F A S T D S R R T S P V G S P A L S I G L S V T L G H L V G I Y F T G C S M N P A R S F G P A V V M N R F S P A H W V F W V G P I V G A V L A A I L Y F Y L L F P N S L S L S E R V A I I K G T Y E P D E D W E E Q R E E R K K T M E L T T R
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
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	AQP5, functioning as a water-specific channel, plays a crucial role in fluid secretion within salivary glands and contributes to the activation of TRPV4 by hypotonicity. Alongside TRPV4, AQP5 is involved in regulating volume decrease in salivary epithelial cells. While essential for these processes, AQP5 appears to have a redundant role in water transport in other tissues such as the eye, lung, and sweat glands. Structurally, AQP5 forms homotetramers, and it interacts with TRPV4, albeit

likely indirectly, to modulate TRPV4 activation in response to hypotonic conditions. This interaction underscores the cooperative involvement of AQP5 and TRPV4 in cellular responses to changes in osmotic conditions.

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