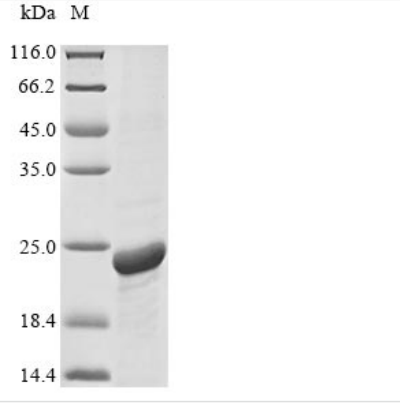
Recombinant Human Aquaporin-1 (AQP1), partial

Product Code	CSB-EP001957HU
Relevance	Forms a water-specific channel that provides the plasma mbranes of red cells and kidney proximal tubules with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient.
Abbreviation	Recombinant Human AQP1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P29972
Alias	Aquaporin-CHIP;Urine water channel;Water channel protein for red blood cells and kidney proximal tubule
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	GALAVLIYDFILAPRSSDLTDRVKVWTSGQVEEYDLDADDINSRVEMKPK
Research Area	Transport
Source	E.coli
Target Names	AQP1
Expression Region	220-269aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	21.6kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description	Amino acids 220-269 constitute the expression domain of recombinant Human AQP1. The calculated molecular weight for this AQP1 protein is 21.6 kDa. Expression of this AQP1 protein is conducted in e.coli. The N-terminal 6xHis-SUMO tag was fused into the coding gene segment of AQP1, making it easier to detect and purify the AQP1 recombinant protein in the later stages of expression and purification. Aquaporin-1 (AQP1) is a transmembrane water channel protein widely distributed in various cell types. Within organisms, AQP1 plays a crucial role in the transport of water and solutes. Especially in the kidneys, lungs, and vascular system, AQP1 is essential for maintaining water balance and regulating fluid content. Studies indicate that AQP1 plays a certain regulatory role in tumor angiogenesis, making it a hot topic in cancer research. Additionally, AQP1 is closely associated with the development of some inflammatory and neurological disorders. In neurobiology research, the expression of AQP1 in neurons is linked to both water balance and neural signal transmission.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.