

Recombinant Human AQP1, His-tagged, GST-tagged

Cat. No. AQP1-3592H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Aquaporin 1, Colton Blood Group (AQP1)
Species	Human
Source	E.coli
ProteinLength	186
Description	Aquaporins are a family of small integral membrane proteins related to the major intrinsic protein (MIP or AQP0). This gene encodes an aquaporin which functions as a molecular water channel protein. It is a homotetramer with 6 bilayer spanning domains and N-glycosylation sites. The protein physically resembles channel proteins and is abundant in erythrocytes and renal tubes. The gene encoding this aquaporin is a possible candidate for disorders involving imbalance in ocular fluid movement. Several transcript variants encoding different isoforms have been found for this gene.
Form	Supplied as lyophilized form in PBS,pH7.4, containing 5% sucrose, 0.01% sarcosyl.
Molecular Mass	39.9kDa
Endotoxin	<1.0eu per 1ug (determined by the lal</1.0eu
Purity	>95%
Applications	SDS-PAGE, Western Blot (WB), ELISA (EIA), Immunoprecipitation (IP)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Notes	Small volumes of AQP1 recombinant protein may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container's cap. Certain products may require to ship with dry ice.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.
Reconstitution	Reconstitute in sterile PBS, pH 7.2-pH 7.4.
Warning	This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GENE INFORMATION

Gene Name	AQP1 aquaporin 1 (Colton blood group) [Homo sapiens]
Official Symbol	AQP1
Synonyms	AQP1; aquaporin 1 (Colton blood group); aquaporin 1 (channel forming integral protein, 28kDa) , aquaporin 1 (channel forming integral protein, 28kDa, CO blood group) , CO, Colton blood group; aquaporin-1; CHIP28; aquaporin-CHIP; Colton blood group; urine water channel; channel-like integral membrane protein, 28-kDa; water channel protein for red blood cells and kidney proximal tubule; aquaporin 1 (channel-forming integral protein, 28kDa, CO blood group); CO; AQP-CHIP;

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	MGC26324;
Gene ID	358
mRNA Refseq	NM_001185060
Protein Refseq	NP_001171989
MIM	107776
UniProt ID	P29972
Chromosome Location	7p14
Pathway	Aquaporin-mediated transport, organism-specific biosystem; Bile secretion, organism-specific biosystem; Bile secretion, conserved biosystem; Passive Transport by Aquaporins, organism-specific biosystem; Proximal tubule bicarbonate reclamation, organism-sp
Function	ammonia transmembrane transporter activity; carbon dioxide transmembrane transporter activity; glycerol transmembrane transporter activity; intracellular cGMP activated cation channel activity; nitric oxide transmembrane transporter activity; potassium channel activity; potassium ion transmembrane transporter activity; protein binding; transmembrane transporter activity; water channel activity; water channel activity; water channel activity; water transmembrane transporter activity;