Datasheet for ABIN7552228

Aquaporin 8 Protein (AQP8) (AA 1-261) (His tag)

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Overview

Quantity:	1 mg
Target:	Aquaporin 8 (AQP8)
Protein Characteristics:	AA 1-261
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Aquaporin 8 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat AQP8 Protein expressed in mammalien cells.
Sequence:	MSGEIAMCEP EFGNDKAREP SVGGRWRVSW YERFVQPCLV ELLGSALFIF IGCLSVIENG TDTGLLQPAL AHGLALGLVI ATLGNISGGH FNPAVSLAAM LIGGLNLVML LPYWVSQLLG GMLGAALAKA VSPEERFWNA SGAAFVTVQE QGQVAGALVA EIILTTLLAL AVCMGAINEK TKGPLAPFSI GFAVTVDILA GGPVSGGCMN PARAFGPAVV ANHWNFHWIY WLGPLLAGLL VGLLIRCFIG DGKTRLILKA R **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and

Product Details

	transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	Aquaporin 8 (AQP8)
Alternative Name:	AQP8 (AQP8 Products)
Background:	Aquaporin-8 (AQP-8),FUNCTION: Channel that allows the facilitated permeation of water and uncharged molecules, such as hydrogen peroxide and the neutral form of ammonia (NH3), through cellular membranes such as plasma membrane, inner mitochondrial membrane and endoplasmic reticulum membrane of several tissues (PubMed:26972385, PubMed:15948717, PubMed:18948439, PubMed:23541115, PubMed:29732408, PubMed:30579780). The transport of the ammonia neutral form induces a parallel transport of proton, at alkaline pH when the concentration of ammonia is high (By similarity). However, it is unclear whether the transport of proton takes place via the aquaporin or via an endogenous pathway (By similarity). Also, may transport ammonia analogs such as formamide and methylamine, a transport favourited at basic pH due to the increase of unprotonated (neutral) form, which is expected to favor diffusion (PubMed:15948717). Does not transport urea or glycerol (PubMed:15948717). The water transport mechanism is mercury- and copper-sensitive and passive in response to osmotic driving forces (PubMed:15948717). At the canicular plasma membrane, mediates the osmotic transport of water toward the bile canaliculus and facilitates the cAMP-induced bile canalicular water secretion, a process involved in bile formation (PubMed:18948439). In addition, mediates the hydrogen peroxide release from hepatocyte mitochondria that modulates the SREBF2-mediated cholesterol synthesis and facilitates the mitochondrial

Target Details

	ammonia uptake which is metabolized into urea, mainly under glucagon stimulation (PubMed:30579780, PubMed:34292591). In B cells, transports the CYBB-generated hydrogen peroxide from the external leaflet of the plasma membrane to the cytosol to promote B cell activation and differentiation for signal amplification (By similarity). In the small intestine and colon system, mediates water transport through mitochondria and apical membrane of epithelial cells (By similarity). May play an important role in the adaptive response of proximal tubule cells to acidosis possibly by facilitating the mitochondrial ammonia transport (PubMed:22622463). {ECO:0000250|UniProtKB:P56404, ECO:0000250|UniProtKB:P56405, ECO:0000269|PubMed:15948717, ECO:0000269|PubMed:18948439, ECO:0000269|PubMed:22622463, ECO:0000269|PubMed:23541115, ECO:0000269|PubMed:26972385, ECO:0000269|PubMed:29732408, ECO:0000269|PubMed:30579780, ECO:0000269|PubMed:34292591}.
Molecular Weight:	27.4 kDa
UniProt:	O94778

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

