Datasheet for ABIN3089096

Aquaporin 4 Protein (AQP4) (AA 1-323) (rho-1D4 tag,His tag)

3 Images

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Overview

Quantity:	0.5 mg
Target:	Aquaporin 4 (AQP4)
Protein Characteristics:	AA 1-323
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Aquaporin 4 protein is labelled with rho-1D4 tag,His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MTETSQVAPA GSSGHHHHHH SDRPTARRWG KCGPLCTREN IMVAFKGVWT QAFWKAVTAE FLAMLIFVLL SLGSTINWGG TEKPLPVDMV LISLCFGLSI ATMVQCFGHI SGGHINPAVT VAMVCTRKIS IAKSVFYIAA QCLGAIIGAG ILYLVTPPSV VGGLGVTMVH GNLTAGHGLL VELIITFQLV FTIFASCDSK RTDVTGSIAL AIGFSVAIGH LFAINYTGAS MNPARSFGPA VIMGNWENHW IYWVGPIIGA VLAGGLYEYV FCPDVEFKRR FKEAFSKAAQ QTKGSYMEVE DNRSQVETDD LILKPGVVHV IDVDRGEEKK GKDQSGEVLS SV **Sequence including N-terminal Rho1D4 tag and N-terminal His-tag.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human AQP4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis). The concentration of our recombinant proteins is measured using the absorbance at 280nm.

Product Details

	The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: 1. The protein is purified from the cleared cell lysate using His-tag capture materials. 2. Eluate fractions are analyzed by SDS-PAGE. 3. Protein containing fractions are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	Aquaporin 4 (AQP4)
Alternative Name:	AQP4 (AQP4 Products)
Background:	Forms a water-specific channel. Osmoreceptor which regulates body water balance and mediates water flow within the central nervous system.
Molecular Weight:	36.8 kDa Including tag.
UniProt:	P55087
Pathways:	Sensory Perception of Sound

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.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you

Application Details

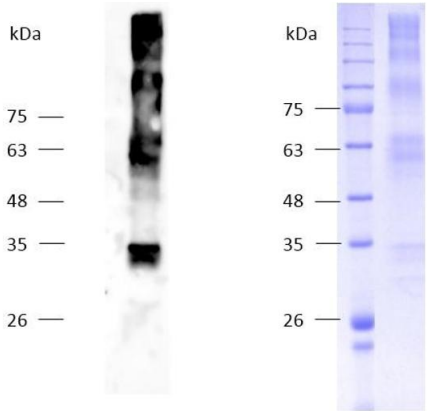
	receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	In solution (20 mM Hepes, pH 8.0, 150 mM NaCl, 0,8 % Octylglucopyranoside)
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

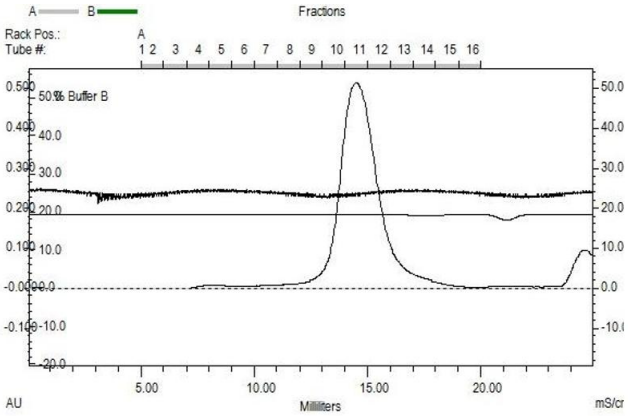
Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process



Aquaporin 4 (APQ4) (AA 1-323); fraction 10 - 12

Image 2.



Aquaporin 4 (APQ4) (AA 1-323), gel filtration
Superose 6; fraction 10 - 12

Image 3.