

Datasheet for ABIN7556460

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



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Overview

Quantity:	1 mg
Target:	Aquaporin 4 (AQP4)
Protein Characteristics:	AA 1-323
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Aquaporin 4 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Aqp4 Protein expressed in mammalian cells.
Sequence:	<p>MSDGAAARRW GKCGHSCSRE SIMVAFKGVW TQAFWKAVSA EFLATLIFVL LGVGSTINWG</p> <p>GSENPLPVDV VLISLCFGLS IATMVQCFGH ISGGHINPAV TVAMVCTRKI SIAKSVFYII</p> <p>AQCLGAIIGA GILYLVTPPS VVGGLGVTTV HGNTAGHGL LVELIITFQL VFTIFASCDS</p> <p>KRTDVTGSIA LAIGFSAIG HLFAINYTGA SMNPARSFGP AVIMGNWANH WIYWVGPIMG</p> <p>AVLAGALYEV VFCPDVELKR RLKEAFSKAA QQTKGSYMEV EDNRSQVETE DLILKPGVVH</p> <p>VIDIDRGEK KGKDSSGEVL SSV 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.</p>
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> Made to order protein - from design to production - by highly experienced protein experts.

Product Details

- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and 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 4 (AQP4)
Alternative Name:	Aqp4 (AQP4 Products)
Background:	<p>Aquaporin-4 (AQP-4) (Mercurial-insensitive water channel) (MIWC) (WCH4),FUNCTION: Forms a water-specific channel (PubMed:8660998, PubMed:9276712, PubMed:18286643). Plays an important role in brain water homeostasis and in glymphatic solute transport (PubMed:22896675, PubMed:27751903, PubMed:30561329, PubMed:30557661). Required for a normal rate of water exchange across the blood brain interface (PubMed:30557661). Required for normal levels of cerebrospinal fluid influx into the brain cortex and parenchyma along paravascular spaces that surround penetrating arteries, and for normal drainage of interstitial fluid along paravenous drainage pathways. Thereby, it is required for normal clearance of solutes from the brain interstitial fluid, including soluble beta-amyloid peptides derived from APP (PubMed:22896675, PubMed:27751903, PubMed:30561329). Plays a redundant role in urinary water homeostasis and urinary concentrating ability (PubMed:9276712). {ECO:0000269 PubMed:18286643, ECO:0000269 PubMed:22896675, ECO:0000269 PubMed:27751903, ECO:0000269 PubMed:30557661, ECO:0000269 PubMed:30561329, ECO:0000269 PubMed:8660998, ECO:0000269 PubMed:9276712}.</p>

Target Details

Molecular Weight:	34.4 kDa
UniProt:	P55088
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.
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