

Product datasheet for **RR216200**

Aqp4 (NM_001270558) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aqp4 (NM_001270558) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aqp4
Synonyms:	AQP-4; Miwc; WCH4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RR216200 representing NM_001270558 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGTGACGGAGCTGCAGCGAGGCGGTGGGGTAAGTGTGGACCTCCCTGCAGCAGAGAGAGCATCATGG
TGGCTTTCAAAGGCGTCTGGACTCAAGCCTTCTGGAAGGCGGTCACAGCAGAGTTCTGGCCATGCTCAT
CTTTGTTCTGCTCAGCGTGGATCCACCATTAAGTGGGGTGGCTCAGAGAACCCCTACCTGTGGACATG
GTCCTCATCTCCCTCTGCTTTGGACTCAGCATTGCCACCATGGTTCAGTGCTTCGGCCACATCAGCGGTG
GCCACATCAACCCAGCGGTGACAGTGGCCATGGTGTGCACACGAAAGATCAGCATCGCCAAGTCCGTCTT
CTACATCACTGCGCAGTGCCTGGGGCCATCATCGGAGCTGGGATCCTCTACCTGGTACACCCCCCAGC
GTGGTGGGAGGATTGGGAGTCAACACGATCAATTATACCGGAGCCAGCATGAATCCAGCTCGATCCTTTG
GCCCTGCAGTTATCATGGGAAACTGGGAAACCACTGGATATATTGGGTTGGACCAATCATAGGCCTGT
GCTGGCAGGTGCACTTTACGAGTATGTCTTCTGTCTGACGTGGAGCTCAAACGTCGCCTAAAGGAAGCC
TTCAGCAAAGCTGCACAGCAGACGAAAGGGAGCTACATGGAGGTGGAGGACAACCGGAGCCAAGTGGAGA
CAGAAGACTTGATCCTGAAGCCCGGGTGGTGCATGTGATCGACATTGACCGTGGAGACGAGAAGAAGGG
GAAGGACTCGTCTGGAGAGGTATTATCTTCTGTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR216200 representing NM_001270558
Red=Cloning site Green=Tags(s)

MSDGAAARRWGKCGPPCSRESIMVAFKGVWTQAFWKAVTAEFLAMLIFVLLSVGSTINWGGSENPLPVDMLISLFCFLSIATMVQCFGHISGGHINPAVTVAMVCTRKISIAKSVFYITAQCLGAIIGAGILYLTPPSVVGGLGVTITINYTGASMNPARSFGPAVIMGNWENHWIYVWGPIIGAVLAGALYEYVFCPDVELKRRLEAFSKAAQTKGSYMVEDNRSQVETEDLILKPGVVHVIDIDRGDEKKGKDSSEVLSSV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_001270558

ORF Size: 804 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001270558.2](#), [NP_001257487.1](#)

RefSeq Size: 4845 bp

RefSeq ORF: 807 bp

Locus ID: 25293

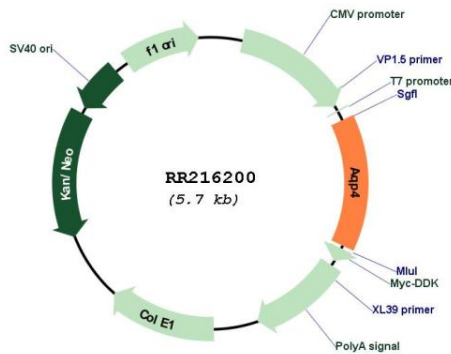
UniProt ID: [P47863](#)

Cytogenetics: 18p13

MW: 28.8 kDa

Gene Summary: This gene encodes a member of the aquaporin family of intrinsic membrane proteins that function as water-selective channels in the plasma membranes of many cells. This protein is the predominant aquaporin found in brain and has an important role in brain water homeostasis. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. A recent study provided evidence for translational readthrough in this gene and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon. [provided by RefSeq, Dec 2015]

Product images:



Circular map for RR216200