

## Product datasheet for **RR200436**

### Aqp4 (NM\_001142366) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Aqp4 (NM\_001142366) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Aqp4  
**Synonyms:** AQP-4; Miwc; WCH4  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR200436 representing NM\_001142366  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGTGGCTTTCAAAGGCGTCTGGACTCAAGCCTTCTGGAAGGCGGTCACAGCAGAGTTCCTGGCCATGC  
TCATCTTTGTTCTGCTCAGCGTGGGATCCACCATTAAGTGGGTGGCTCAGAGAACCCCTACCTGTGGA  
CATGGTCCTCATCTCCCTCTGCTTTGGACTCAGCATTGCCACCATGGTTCAGTGTTCGGCCACATCAGC  
GGTGGCCACATCAACCCAGCGGTGACAGTGGCCATGGTGTGCACACGAAAGATCAGCATCGCCAAGTCCG  
TCTTCTACATCACTGCGCAGTGCCTGGGGCCATCATCGGAGCTGGGATCCTCTACCTGGTCACACCCCC  
CAGCGTGGTGGGAGGATTGGGAGTCAACACGGTTCATGGAAACCTCACTGCTGGCCATGGGCTCCTGGTG  
GAGCTAATAATCACTTTCCAGCTGGTATTCACCATTTTTGCCAGCTGTGATTCCAACGGACTGATGTTA  
CTGGTTCCGTTGCTTTAGCAATTGGGTTTTCCGTTGCAATTGGACATTTGTTTGAATCAATTATACCGG  
AGCCAGCATGAATCCAGCTCGATCCTTTGGCCCTGCAGTTATCATGGAAACTGGGAAAACCACTGGATA  
TATTGGGTTGGACCAATCATAGGCGCTGTGCTGGCAGGTGCACATTACGAGTATGTCTTCTGTCTGACG  
TGGAGCTCAAACGTCGCCTAAAGGAAGCCTTCAGCAAAGCTGCACAGCAGACGAAAGGGGACTACATGGA  
GGTGGAGGACAACCGGACCAAGTGGAGACAGAAGACTTGATCCTGAAGCCCGGGGTGGTGCATGTGATC  
GACATTGACCGTGGAGACGAGAAGAAGGGGAAGGACTCGTCTGGAGAGGTATTATCTTCTGTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR200436 representing NM\_001142366  
Red=Cloning site Green=Tags(s)

MVAFKGVWTQAFWKAVTAEFLAMLIFVLLSVGSTINWGGSENPLPVDMLISLCFGLSIATMVQCFGHIS  
 GGHINPAVTVMVCTRKISIAKSVFYITAQCLGAIIGAGILYLTPPSVVGGLGVTTVHGNLTAGHLLV  
 ELIITFQLVFTIFASCDKRTDVTGSVALAIGFSVAIGHLFAINYTGASMNPARSFGPAVIMGNWENHWI  
 YWVGPIIGAVLAGALYEYVFCPDVELKRRLKEAFSKAAQQTGKSYMEVEDNRSQVETEDLILKPGVVHVI  
 DIDRGDEKKGKDSSEVLSSV

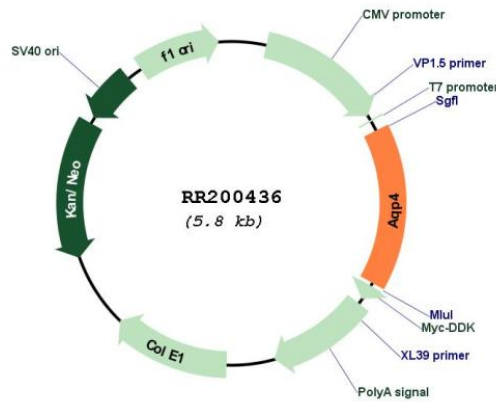
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001142366

**ORF Size:** 903 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001142366.2</a> , <a href="#">NP_001135838.1</a>
<b>RefSeq Size:</b>	5018 bp
<b>RefSeq ORF:</b>	906 bp
<b>Locus ID:</b>	25293
<b>UniProt ID:</b>	<a href="#">P47863</a>
<b>Cytogenetics:</b>	18p13
<b>MW:</b>	32.2 kDa
<b>Gene Summary:</b>	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]