

## Product datasheet for RN216200

### Aqp4 (NM\_001270558) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Aqp4 (NM\_001270558) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Aqp4  
**Synonyms:** AQP-4; Miwc; WCH4  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN216200 representing NM\_001270558  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGTGACGGAGCTGCAGCGAGCGGTGGGGTAAGTGTGGACCTCCCTGCAGCAGAGAGAGCATCATGG  
 TGGCTTTCAAAGGCGTCTGGACTCAAGCCTTCTGGAAGGCGGTACAGCAGAGTTCCTGGCCATGCTCAT  
 CTTTGTCTGCTCAGCGTGGGATCCACCATTAAGTGGGGTGGCTCAGAGAACCCCTACCTGTGGACATG  
 GCCTCATCTCCCTCTGCTTTGGACTCAGCATTGCCACCATGGTTCAGTGCCTCGGCCACATCAGCGGTG  
 GCCACATCAACCCAGCGGTGACAGTGGCCATGGTGTGCACACGAAAGATCAGCATCGCCAAGTCCGTCTT  
 CTACATCACTGCGCAGTGCCTGGGGCCATCATCGGAGCTGGGATCCTCTACCTGGTACACCCCCCAGC  
 GTGGTGGGAGGATTGGGAGTCAACACGATCAATTATACCGGAGCCAGCATGAATCCAGCTCGATCCTTTG  
 GCCCTGCAGTTATCATGGGAAACTGGGAAAACCACTGGATATATTGGGTTGGACCAATCATAGGCGCTGT  
 GCTGGCAGGTGCACTTTACGAGTATGTCTTCTGTCTGACGTGGAGCTCAAACGTCGCCTAAAGGAAGCC  
 TTCAGCAAAGCTGCACAGCAGACGAAAGGGAGCTACATGGAGGTGGAGGACAACCGGAGCCAAGTGGAGA  
 CAGAAGACTTGATCCTGAAGCCCGGGTGGTGCATGTGATCGACATTGACCGTGGAGACGAGAAGAAGGG  
 GAAGGACTCGTCTGGAGAGGTATTATCTTCTGTATGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001270558  
**Insert Size:** 807 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>	<u><a href="#">NM_001270558.2</a></u> , <u><a href="#">NP_001257487.1</a></u>
<b>RefSeq Size:</b>	4845 bp
<b>RefSeq ORF:</b>	807 bp
<b>Locus ID:</b>	25293
<b>UniProt ID:</b>	<u><a href="#">P47863</a></u>
<b>Cytogenetics:</b>	18p13
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (3, also known as AQP4b) lacks an in-frame coding exon compared to variant 1. The resulting isoform (3) is shorter, missing an internal protein segment compared to isoform M1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>