

Product datasheet for **RN216132**

Aqp4 (NM_001270559) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Aqp4 (NM_001270559) 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: >RN216132 representing NM_001270559
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGTGGCTTTCAAAGGCGTCTGGACTCAAGCCTTCTGGAAGGCGGTACAGCAGAGTTCCTGGCCATGC
TCATCTTTGTTCTGCTCAGCGTGGGATCCACCATTAAGTGGGTGGCTCAGAGAACCCCTACCTGTGGA
CATGGTCTCATCTCCCTCTGCTTTGGACTCAGCATTGCCACCATGGTTCAGTGTTCGGCCACATCAGC
GGTGGCCACATCAACCCAGCGGTGACAGTGGCCATGGTGTGCACACGAAAGATCAGCATCGCCAAGTCCG
TCTTCTACATCACTGCGCAGTGCCTGGGGCCATCATCGGAGCTGGGATCCTCTACCTGGTCACACCCCC
CAGCGTGGTGGGAGGATTGGGAGTCAACACGATCAATTATACCGGAGCCAGCATGAATCCAGCTCGATCC
TTTGGCCCTGCAGTTATCATGGGAACTGGGAAAACCACTGGATATATTGGGTTGGACCAATCATAGGCG
CTGTGCTGGCAGGTGCACTTTACGAGTATGTCTTCTGTCTGACGTGGAGCTCAAACGTGCGCTAAAGGA
AGCCTTCAGCAAAGCTGCACAGCAGACGAAAGGGAGCTACATGGAGGTGGAGGACAACCGGAGCCAAGTG
GAGACAGAAGACTTGATCCTGAAGCCCGGGTGGTGCATGTGATCGACATTGACCGTGGAGACGAGAAGA
AGGGGAAGGACTCGTCTGGAGAGGTATTATCTTCTGT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001270559
Insert Size: 741 bp



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OTI Disclaimer:	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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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:	<u>NM_001270559.2, NP_001257488.1</u>
RefSeq Size:	4853 bp
RefSeq ORF:	741 bp
Locus ID:	25293
Cytogenetics:	18p13
Gene Summary:	<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 (4, also known as AQP4d) contains an alternate 5' terminal exon and lacks an in-frame coding exon compared to variant 1. These changes result in translation initiation from an in-frame, downstream start codon, and an isoform (4) with a shorter N-terminus and missing an internal protein segment compared to isoform M1.</p> <p>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>