

Product datasheet for **RG204693**

Aquaporin 4 (AQP4) (NM_001650) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Aquaporin 4 (AQP4) (NM_001650) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Aquaporin 4
Synonyms: MIWC; WCH4
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG204693 representing NM_001650
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAGTGACAGACCCACAGCAAGGCGGTGGGGTAAGTGTGGACCTTTGTGTACCAGAGAGAACATCATGG
 TGGCTTTCAAAGGGTCTGGACTCAAGCTTTCTGGAAAGCAGTCACAGCGGAATTTCTGGCCATGCTTAT
 TTTTGTCTCCTCAGCCTGGGATCCACCATCAACTGGGGTGAACAGAAAAGCCTTACCAGGTCGACATG
 GTTCTCATCTCCCTTTGCTTTGGACTCAGCATTGCAACCATGGTGCAGTCTTTGGCCATATCAGCGGTG
 GCCACATCAACCCTGCAGTGACTGTGGCCATGGTGTGCACCAGGAAGATCAGCATCGCCAAGTCTGTCTT
 CTACATCGCAGCCAGTGCCTGGGGCCATCATTGGAGCAGGAATCCTCTATCTGGTCACACCTCCCAGT
 GTGGTGGGAGGCCTGGGAGTCACCATGGTTCATGGAAATCTTACCCTGGTTCATGGTCTCCTGGTTGAGT
 TGATAATCACATTTCAATTGGTGTCTTACTATCTTTGCCAGCTGTGATTCCAAACGGACTGATGTCAGTGG
 CTCAATAGCTTTAGCAATTGGATTTTCTGTTGCAATTGGACATTTATTTGCAATCAATTATACTGGTGCC
 AGCATGAATCCCGCCGATCCTTTGGACCTGCAGTTATCATGGGAAATGGGAAAACCATGGATATATT
 GGGTTGGGCCATCATAGGAGCTGTCTCGCTGGTGGCCTTTATGAGTATGTCTTCTGTCCAGATGTTGA
 ATTCAAACGTCGTTTTAAAGAAGCCTTCAGCAAAGCTGCCAGCAAACAAAAGGAAGCTACATGGAGGTG
 GAGGACAACAGGAGTCAGGTAGAGACGGATGACCTGATTCTAAAACCTGGAGTGGTGCATGTGATTGACG
 TTGACCGGGGAGAGGAGAAGAAGGGGAAAGACCAATCTGGAGAGGTATTGTCTTCAGTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG204693 representing NM_001650
 Red=Cloning site Green=Tags(s)

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MSDRPTARRWGKCGPLCTRENIMVAFKGVWTQAFWKAVTAEFLAMLIFVLLSLGSTINWGGTEKPLPVDM
VLISLFCFLSIATMVQCFGHISGGHINPAVTVAMVCTRKISIAKSVFYIAAQCLGAIIGAGILYLVTTPS
VVGGLGVTMVHGNLTAGHLLVELIITFQLVFTIFASCDKRDVTGSIALAIGFSVAIGHLFAINYTGA
SMNPARSFGPAVIMGNWENHWIYWVGPIIGAVLAGGLYEYVFCPDVEFKRRFKEAFSKAAQTKGSYMEV
EDNRSQVETDDLILKPGVVHVIDVDRGEEKKGGKQDSGEVLSSV
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001650

ORF Size: 969 bp

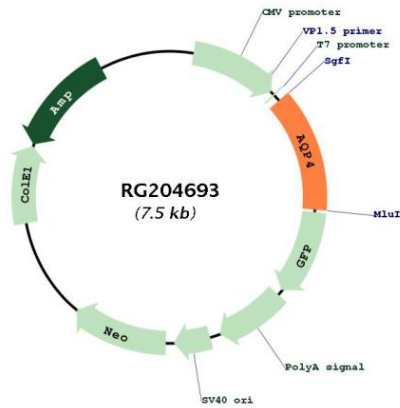
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001650.7
RefSeq Size:	5216 bp
RefSeq ORF:	972 bp
Locus ID:	361
UniProt ID:	P55087
Cytogenetics:	18q11.2
Domains:	MIP
Protein Families:	Druggable Genome, Transmembrane
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. Additional isoforms, resulting from the use of alternative in-frame translation initiation codons, have also been described. Recent studies provided evidence for translational readthrough in this gene, and expression of C-terminally extended isoforms via the use of an alternative in-frame translation termination codon. [provided by RefSeq, Jun 2018]</p>

Product images:



Circular map for RG204693