

Product datasheet for RC212363

Aquaporin 7 (AQP7) (NM_001170) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aquaporin 7 (AQP7) (NM_001170) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aquaporin 7
Synonyms:	AQP7L; AQPap; GLYCQL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212363 representing NM_001170 Red =Cloning site Blue =ORF Green =Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGATCGCC

ATGGTTCAAGCATCCGGGCACAGGCGGTCCACCCGTGGCTCCAAAATGGTCTCCTGGTCCGTGATAGCAA
 AGATCCAGGAAATACTGCAGAGGAAGATGGTGCGAGAGTTCCTGGCCGAGTTCATGAGCACATATGTCAT
 GATGGTATTCGGCCTTGGTTCCGTGGCCCATATGGTTCTAAATAAAAAATATGGGAGCTACCTTGGTGTC
 AACTTGGGTTTTGGCTTCGGAGTCACCATGGGAGTGCACGTGGCAGGCCGCATCTCTGGAGCCCACATGA
 ACGCAGCTGTGACCTTTGCTAACTGTGCGCTGGGCCGCGTGCCCTGGAGGAAGTTTCCGGTCTATGTGCT
 GGGGCAGTTCCTGGGCTCCTTCTGGCGGCTGCCACCATCTACAGTCTCTTCTACACGGCCATTCTCCAC
 TTTTCGGGTGGACAGCTGATGGTGACCGGTCCCCTCGCTACAGCTGGCATTTCCTGACCTACCTTCCTG
 ATCACATGACATTGTGGCGGGGCTTCTGAATGAGGCGTGGCTGACCGGGATGCTCCAGCTGTGTCTCTT
 CGCCATCACGGACCAGGAGAACAACCCAGCACTGCCAGGAACAGAGGCGCTGGTGATAGGCATCCTCGTG
 GTCATCATCGGGGTGTCCTTGGCATGAACACAGGATATGCCATCAACCCGTCCCGGGACCTGCCCCCCC
 GCATCTTCACCTTCATTGCTGGTTGGGGCAAACAGGTCTTCAGCAATGGGAGAACTGGTGGTGGGTGCC
 AGTGGTGGCACCATTCTGGGTGCCTATCTAGGTGGCATCATCTACCTGGTCTTCATTGGCTCCACCATC
 CCACGGGAGCCCCCTGAAATTGGAGGATTCTGTGGCGTATGAAGACCACGGGATAACCGTATTGCCAAGA
 TGGGATCTCATGAACCCACGATCTCTCCCTCACCCCGTCTCTGTGAGCCCTGCCAACAGATCTTCAGT
 CCACCCTGCCCCACCCTTACATGAATCCATGGCCCTAGAGCACTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC212363 representing NM_001170

Red=Cloning site Green=Tags(s)

MVQASGHRSTRGSKMVSWSVIAKIQEILQRKMVREFLAEFMSTYVMMVFGLSVAHMLNKKYGSYLGV
 NLGFGFGVTMGVHVAGRTSGAHMNAAVTFANCALGRVPWRKFPVYVLGQFLGSFLAAATIYSLFYTAILH
 FSGGQLMVTGPVATIGAFATYALPDHMTLWRGFLNEAWLTGMLQLCLFAITDQENNPALPGGIEALVIGILV
 VIIGVSLGMNTGYAINPSRDLPKRIFTHIAGWGKQVFSNGENNMWVVPVAPLLGAYLGIIYLVFIGSTI
 PREPLKLEDSVAYEDHGIIIVLPKMGHSHEPTISPLTPVSVSPANRSSVHPAPPLHESMALEHF

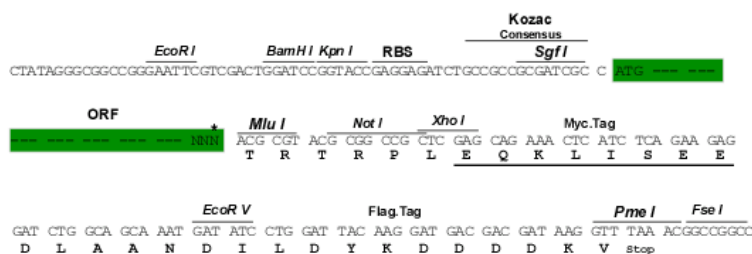
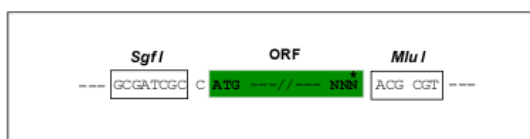
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8007_c07.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001170

ORF Size: 1026 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001170.3](#)

RefSeq Size: 1258 bp

RefSeq ORF: 1029 bp

Locus ID: 364

UniProt ID: [O14520](#)

Cytogenetics: 9p13.3

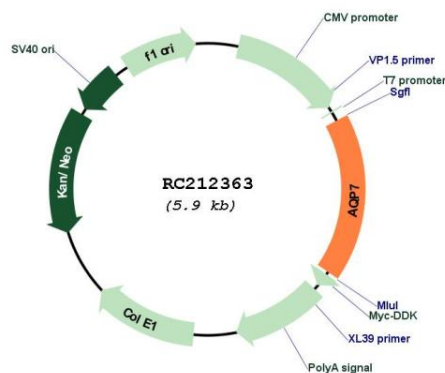
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: PPAR signaling pathway

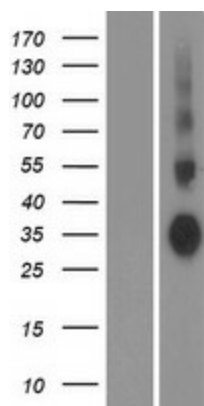
MW: 37.1 kDa

Gene Summary: This gene encodes a member of the aquaporin family of water-selective membrane channels. The encoded protein localizes to the plasma membrane and allows movement of water, glycerol and urea across cell membranes. This gene is highly expressed in the adipose tissue where the encoded protein facilitates efflux of glycerol. In the proximal straight tubules of kidney, the encoded protein is localized to the apical membrane and prevents excretion of glycerol into urine. The encoded protein is present in spermatids, as well as in the testicular and epididymal spermatozoa suggesting an important role in late spermatogenesis. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. This gene is located adjacent to a related aquaporin gene on chromosome 9. Multiple pseudogenes of this gene have been identified. [provided by RefSeq, Dec 2015]

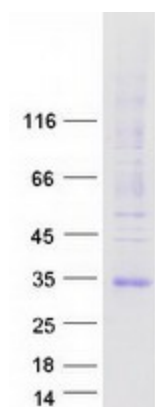
Product images:



Circular map for RC212363



Western blot validation of overexpression lysate (Cat# [LY420089]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212363 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AQP7 protein (Cat# [TP312363]). The protein was produced from HEK293T cells transfected with AQP7 cDNA clone (Cat# RC212363) using MegaTran 2.0 (Cat# [TT210002]).