

Product datasheet for RC216810

Aquaporin 0 (MIP) (NM_012064) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aquaporin 0 (MIP) (NM_012064) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aquaporin 0
Synonyms:	AQP0; CTRCT15; LIM1; MIP26; MP26
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216810 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTGGGAACTGCGATCAGCCTCCTTTGGAGGGCCATATTCGCTGAGTTCTTTGCCACCCTCTTCTATG
TCTTCTTTGGGCTGGGGTCTCACTGCGCTGGGCTCTGGACCCCTGCATGTTCTGCAGGTGGCTATGGC
ATTTGGCTTGGCCCTGGCTACACTGGTGCAGTCTGTGGGCCACATCAGTGGAGCCCACGTCATCCTGCA
GCACTTTTGTCTTCTTGTGGGCTCCCAGATGTCCTGCTCCGTGCCTTCTGCTATATGGCAGCCCAGC
TCCTGGGAGCTGTGGCTGGGGCCGCTGTGCTGTATAGCGTTACCCACCTGCTGTCCGAGGAAACCTAGC
ACTCAACACGTTGCACCCCTGCGGTGAGCGTGGGCCAGGCAACCACAGTGGAGATCTTCTGACGCTCCAG
TTCGTGCTCTGCATCTTTGCCACATACGACGAGAGGCGGAATGGCCAACCTGGGCTCCGTGGCCCTGGCCG
TTGGCTTCTCCCTTGCCCTGGGGCACCTCTTTGGGATGTATTATACTGGTGCAGGCATGAATCCTGCCCCG
CTCCTTTGCTCCTGCCATTCTCACTGGGAACCTCACTAACCACCTGGGTGTACTGGGTAGGCCCAATCATT
GGAGGGGGTCTGGGCAGCCTCCTGTACGACTTTCTTCTTCCCCGGCTCAAGAGTATTCTGAGAGAC
TGTCTGCTCAAGGGTGCCAAACCCGATGTCTCCAATGGACAACCAGAGGTCACAGGGGAACTGTTGA
ACTGAACACCCAGGCCCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC216810 protein sequence
 Red=Cloning site Green=Tags(s)

MWELRSASFWRIFAIEFFATLFYVFFGLGSSLRWAPGPLHVLQVAMAFGLALATLVQSVGHISGAHVNPA
 VTF AFLVGSQMSLLRAF CYMAAQLLGAVAGA AVL SVTPPAVRGNLALNTLHPAVSVGQATTVEIFLTLQ
 FVLCIFATYDERRNGQLGSVALAVGFSLALGHLFGMYT GAGMNPARSFAPA I L TGNFTNHVYVWGP I I
 GGGLGSLLYDFLLFPRLKSI SERLSVLKGAKPDVSNQPEVTGEPVELNTQAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6464_f04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_012064

ORF Size: 789 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.

RefSeq: [NM_012064.4](#)

RefSeq Size: 2608 bp

RefSeq ORF: 792 bp

Locus ID: 4284

UniProt ID: [P30301](#)

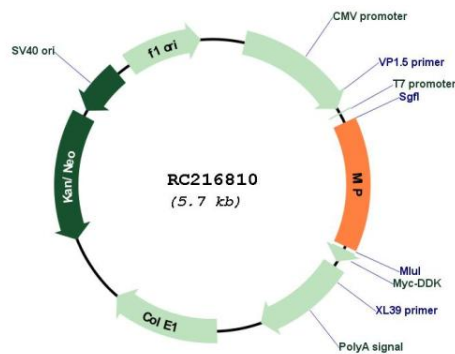
Cytogenetics: 12q13.3

Protein Families: Druggable Genome, Transmembrane

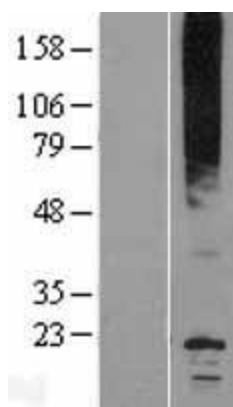
MW: 28.1 kDa

Gene Summary: Major intrinsic protein is a member of the water-transporting aquaporins as well as the original member of the MIP family of channel proteins. The function of the fiber cell membrane protein encoded by this gene is undetermined, yet this protein is speculated to play a role in intracellular communication. The MIP protein is expressed in the ocular lens and is required for correct lens function. This gene has been mapped among aquaporins AQP2, AQP5, and AQP6, in a potential gene cluster at 12q13. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC216810



Western blot validation of overexpression lysate (Cat# [LY416001]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216810 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).