

Product datasheet for MR203989

Aqp3 (NM_016689) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aqp3 (NM_016689) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aqp3
Synonyms:	AQP-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR203989 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGTCGACAGAAGGAGTTGATGAATCGTTGTGGGGAGATGCTTCACATCCGCTACCGGCTGCTTCGCC
AGGCGCTGGCGGAGTGCCTGGGGACCCATCCTTGTGATGTTTGGCTGTGGCTCCGTGGCTCAGGTGGT
GCTCAGCCGTGGCACCCATGGTGGCTTCCTCACCATCAACTTGGCTTTTGGCTTCGCTGTCACCCTTGGC
ATCTTGGTGGCTGGCCAGGTGTCTGGTGCCACTTGAACCCCGCTGTGACCTTCGCAATGTGCTTCTGG
CAGGAGAGCCCTGGATCAAGCTGCCATCTATGCACTGGCACAGACACTGGGGCCTTCTTGGGCGCTGG
GATTGTTTTTGGGCTGTACTACGATGCAATCTGGGCCTTTGCCAACAATGAGCTTTTCGCTCTGGCCCC
AACGGCACAGCTGGAATCTTTGCCACCTATCCCTCTGGACACTTGGACATGGTCAATGGCTTCTTTGATC
AGTTTCATAGGCACAGCCGCCCTTATTGTGTGTGTACTGGCCATCGTTGACCCCTATAACAACCTGTGCC
CCGTGGCTGGAGGCTTTCAGTGTGGGCCTGGTGGTCTGGTCAATGGAACCTCCATGGGCTTCAATTCT
GGCTATGCCGTCAACCTGCCCGTACTTTGGACCTCGCTCTTACCAGCCCTGGCTGGCTGGGGCTCAG
AAGTCTTACGACTGGCCGGCACTGGTGGTGGGATACCCATTGTCTCCCCACTCTGGGTTCCATCGCTGG
TGCTTTCGTGTACCAGCTCATGATTGGTTGCCACCTGGAGCAGCCCCACCCTCCACCGAGGAAGAGAAT
GTGAAGCTGGCCACATGAAACACAAGGAGCAGATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR203989 protein sequence
Red=Cloning site Green=Tags(s)

MGRQKELMNRCGEMLHIRYRLLRQALAECLGTLILVMFGCGSVAQVVL SRGTHGGFLTINLAFGFAVTLG
 ILVAGQVSGAHLNPAVTFAMCFLAREPWIKLPIYALAQTLGAFLGAGIVFGLYYDAIWAFANNELFVSGP
 NGTAGIFATYPSGHLDMVNGFFDQFIGTAALIVCVLAI VDPYNNPVPRGLEAFTVGLVVLVIGTSMGFNS
 GYAVNPARDFGPRLFTALAGWGSEVFTTGRHWWVPIVSPLLGS IAGVFVYQLMIGCHLEQPPPSTEEEN
 VKLAHMKHKEQI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_016689

ORF Size: 879 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_016689.2](#), [NP_057898.2](#)

RefSeq Size: 1763 bp

RefSeq ORF: 879 bp

Locus ID: 11828

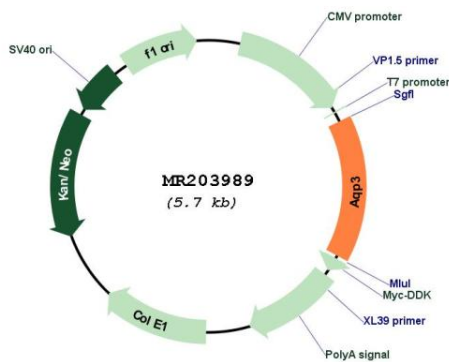
UniProt ID: [Q8R2N1](#)

Cytogenetics: 4 A5

MW: 31.6 kDa

Gene Summary: Water channel required to promote glycerol permeability and water transport across cell membranes. Acts as a glycerol transporter in skin and plays an important role in regulating SC (stratum corneum) and epidermal glycerol content. Involved in skin hydration, wound healing, and tumorigenesis. Provides kidney medullary collecting duct with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient. Slightly permeable to urea and may function as a water and urea exit mechanism in antidiuresis in collecting duct cells. It may play an important role in gastrointestinal tract water transport and in glycerol metabolism.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR203989