

## Product datasheet for RC206553

### Aquaporin 2 (AQP2) (NM\_000486) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aquaporin 2 (AQP2) (NM_000486) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aquaporin 2
Synonyms:	AQP-CD; NDI2; WCH-CD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206553 representing NM_000486 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGGAGCTCCGCTCCATAGCCTTCTCCAGGGCTGTGTTTCGAGAGTTCCTGGCCACACTCCTCTTCG  
TCTTCTTTGGCCTCGGCTCTGCCCTCAACTGGCCACAGGCCCTGCCCTCTGTGCTACAGATTGCCATGGC  
GTTTGGCTTGGTATTGGCACCCTGGTACAGGCTCTGGGCCACATAAGCGGGGCCACATCAACCCTGCC  
GTGACTGTGGCCTGCCTGGTGGGCTGCCACGTCTCCGTTCTCCGAGCCGCTTCTACGTGGCTGCCCAGC  
TGCTGGGGGCTGTGGCCGAGCCGCTCTGCTCCATGAGATCACGCCAGCAGACATCCGCGGGGACCTGGC  
TGCAATGCTCTCAGCAACAGCAGCAGCGGCTGGCCAGGCGGTGACTGTGGAGCTTCTCCTGACACTGCAG  
CTGGTGTCTGCATCTTCGCTCCACCGATGAGCGCCGCGGAGAGAACC CGGGCACCCCTGCTCTCTCCA  
TAGGCTTCTCTGTGGCCCTGGGCCACCTCCTTGGGATCCATTACACCGGCTGCTCTATGAATCCTGCCCCG  
CTCCCTGGCTCCAGTGTGCTCACTGGCAAATTTGATGACCACTGGGCTTCTGGATCGGACCCCTGGTG  
GGCGCCATCCTGGGCTCCCTCCTCTACAACACTACGTGCTGTTTCCGCCAGCCAAGAGCCTGTGCGAGCGCC  
TGGCAGTGCTGAAGGGCTGGAGCCGGACCCGATTGGGAGGAGCGCGAGGTGCGACGGCGCAGTCGGT  
GGAGCTGCACTCGCCGACAGCCTGCCACGGGGTACCAAGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC206553 representing NM\_000486  
Red=Cloning site Green=Tags(s)

MWELRSIAFSRAVFAEFLATLLFVFFGLGSALNWPQALPSVLQIAMAFGLGIGTLVQALGHISGAHINPA  
 VTVAQLVGCHVSVLRAAFYVAAQLLGA VAGAALLHEITPADIRGDLAVNALSNSTTAGQAVTVLFLTLQ  
 LVL CIFASTDERRGENPGTPALSIGFSVALGHLLGIHYTGCSMNPARS LAPAVVTGKFDDHWVFWIGPLV  
 GAILGSLLYNYVLFPPAKSLSERLAVLKGLEPDTDWEEREVRRRQSVLHSPQSLPRGTKA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1478\\_a02.zip](https://cdn.origene.com/chromatograms/ja1478_a02.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\_000486

**ORF Size:** 813 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\\_000486.6](#)

**RefSeq Size:** 4222 bp

**RefSeq ORF:** 816 bp

**Locus ID:** 359

**UniProt ID:** [P41181](#)

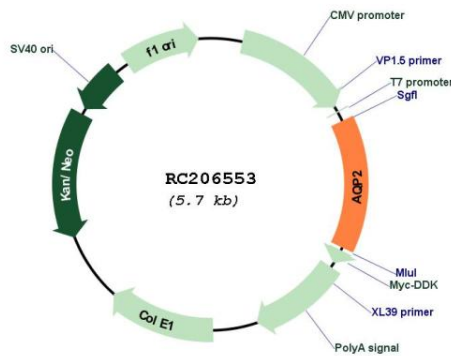
**Cytogenetics:** 12q13.12

**Protein Families:** Druggable Genome, Transmembrane

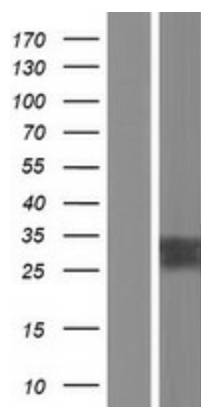
**MW:** 28.7 kDa

**Gene Summary:** This gene encodes a water channel protein located in the kidney collecting tubule. It belongs to the MIP/aquaporin family, some members of which are clustered together on chromosome 12q13. Mutations in this gene have been linked to autosomal dominant and recessive forms of nephrogenic diabetes insipidus. [provided by RefSeq, Oct 2008]

**Product images:**



Circular map for RC206553



Western blot validation of overexpression lysate (Cat# [LY424696]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206553 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).