

Product datasheet for **RG206553**

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:	TurboGFP
Symbol:	Aquaporin 2
Synonyms:	AQP-CD; NDI2; WCH-CD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206553 representing NM_000486 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGGAGCTCCGCTCCATAGCCTTCTCCAGGGCTGTGTTGCGAGAGTTCCTGGCCACACTCCTCTTCG
TCTTCTTTGGCCTCGGCTCTGCCCTCAACTGGCCACAGGCCCTGCCCTCTGTGCTACAGATTGCCATGGC
GTTTGGCTTGGTATTGGCACCCTGGTACAGGCTCTGGGCCACATAAGCGGGGCCACATCAACCCTGCC
GTGACTGTGGCCTGCCTGGTGGGCTGCCACGTCTCCGTTCTCCGAGCCGCTTCTACGTGGCTGCCCAGC
TGCTGGGGGCTGTGGCCGAGCCGCTCTGCTCCATGAGATCACGCCAGCAGACATCCGCGGGGACCTGGC
TGTC AATGCTCTCAGCAACAGCAGCAGCGGCTGGCCAGGCGGTGACTGTGGAGCTCTTCTGACACTGCAG
CTGGTGTCTGCATCTTCGCTCCACCGATGAGCGCCGCGGAGAGAACC CGGGCACCCCTGCTCTCTCCA
TAGGCTTCTCTGTGGCCCTGGGCCACCTCCTTGGGATCCATTACACCGGCTGCTCTATGAATCCTGCCCCG
CTCCCTGGCTCCAGCTGTCGTA CTGGCAAATTTGATGACCACTGGGCTTCTGGATCGGACCCCTGGT
GGCGCCATCCTGGGCTCCCTCCTCTACA ACTACGTGCTGTTTCCGCCAGCCAAGAGCCTGTCTGGAGCGCC
TGGCAGTGCTGAAGGCCTGGAGCCGACACCGATTGGGAGGAGCGCGAGGTGCGACGGCGCAGTCGGT
GGAGCTGCACTCGCCG CAGAGCCTGCCACGGGGTACCAAGGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206553 representing NM_000486
 Red=Cloning site Green=Tags(s)

MWELRSIAFSRAVFAEFLATLLFVFFGLGSALNWPQALPSVLQIAMAFLGIGTLVQALGHISGAHINPA
 VTVACLVGCHVSVLRAAFYVAAQLLGAVAGAALLHEITPADIRGDLAVNALSNSTTAGQAVTVLFLTLQ
 LVLCIFASTDERRGENPGTPALSIGFSVALGHLLGIHYTGCSMNPAPSLAPAVVTGKFDDHWVFWIGPLV
 GAILGSLLYNYVLFPPAKSLSERLAVLKGLEPDTDWEEREVRRRQSVELHSPQSLPRGTKA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

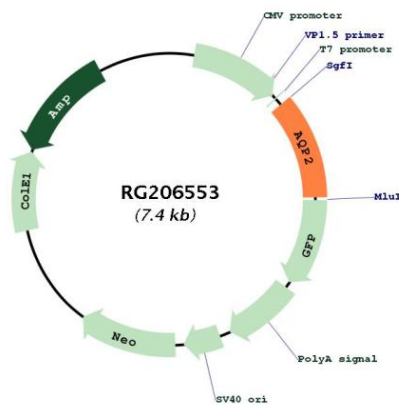
UniProt ID: [P41181](#)

Cytogenetics: 12q13.12

Protein Families: Druggable Genome, Transmembrane

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 RG206553