

## Product datasheet for **MG218169**

### Ahcyl2 (NM\_001171001) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ahcyl2 (NM_001171001) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ahcyl2
Synonyms:	4631427C17Rik; Adohcyase3; AI227036; mKIAA0828
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218169 representing NM\_001171001  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCTGAGCAGCAAGAAGAAATACATTGTCAATAGCAACTCTGGGATTAAGCCCAGATTAGTTTGTCTG  
 ACCAGAAGCAGGAATTCACAAACGTCCACCAAATCGACGTCGCTCTTTGTCTCGTTCCATCTCTCA  
 GTCATCTACTGACAGCTATAGCTCAGCTGCCTCATATACAGATAGCTCTGACGATGAGACATCCCCCAGG  
 GACAAGCAGCAAAAGAACTCTAAGGGAAGTAGCGACTTCTGTGTCAAGAACATCAAACAAGCGGAGTTTG  
 GACGCAGAGAAATTGAAATTGCTGAGCAAGAGATGCCTGCCTTGATGGCTTAAGGAAGAGAGCCCAAGG  
 AGAAAAGCCTTTGGCTGGAGCCAAAATTGTGGTTGTACGCACATCACTGCTCAGACAGCCGTGCTTATG  
 GAGACTGGGTGCTCTGGGGCACAGTGCCGATGGGCTGCCTGCAACATCTACTCCACCCTCAATGAAG  
 TGGCTGCTGCTCTCGCAGAAAGTGGTTTCCCGTCTTTGCCTGAAAGGAGAATCAGAAGATGACTTTTG  
 GTGGTGCATTGACAGATCGGTGAATGTGGAGGGCTGCCAGCCAAACATGATACTGGATGATGGAGGAGAT  
 CTGACTCACTGGATTTATAAAAAGTATCCCAACATGTTTAAAAAATCAAAGGCATAGTCGAGGAGAGTG  
 TTAAGTGGAGTCCATAGGCTGTACCAACTGTCCAAGCTGGGAAGCTGTGTGTTCCCGCCATGAACGTCAA  
 TGACTCAGTCACTAAGCAGAAATTTGATAACCTCTACTGTTGCCGTGAATCTATTCTTGACGGACTTAAA  
 AGGACAACAGATATGATGTTTGGTGGAAAGCAGGTGGTGGTCTGTGGCTATGGAGAGGTGGGAAAGGGGT  
 GCTGCGCTGCTCTGAAAGCCATGGGCTCCATTGTGTACGTGACTGAGATTGACCCCATCTGTGCCCTGCA  
 AGCCTGTATGGATGGATCCGACTAGTGAAGCTGAATGAAGTCATCCGACAGGTGCAGATTGTTATTACT  
 TGCACAGGGAACAAGAATGTGGTAACCAGAGAGCACTGGACCGTATGAAGAATAGTGCATCGTTTGTA  
 ACATGGGCCATTCCAACACCGAGATTGATGTGGCCAGCCTGCGGACACCAGAAGTACCTGGGAGAGT  
 AAGATCCCAAGTTGATCATGTGATATGGCCTGATGGCAAGAGGATAGTACTGCTGGCAGAGGGCCGCTCTA  
 CTGAATCTCAGCTGCTCCACAGTGCCTACATTTGTGCTCTCCATCACTGCTACCCTCAGGCTCTCGCCT  
 TGATAGAACTTTACAATGCTCCTGAGGGTGCCTATAAGCAAGATGTGTACCTGCTACCCAAGAAAATGGA  
 TGAGTATGTGGCAAGCCTACACCTGCCACCTTTGATGCCACCTGACAGAGCTAACAGATGAACAAGCC  
 AAGTATCTGGGACTCAACAAGAATGGACCCTTCAAGCCTAACTACTACAGGTAT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG218169 representing NM\_001171001  
 Red=Cloning site Green=Tags(s)

MLSSKKKYIVNSNSGIKAQIQFADQKQEFNKRPTKIGRRSLRSISQSSTDSYSSAASYTDSDDETS  
 DKQKNSKGSDFCVKNIKQAEFGRREIEIAEQEMPALMALRKRAQGEKPLAGAKIVGCTHITAQTAVLM  
 ETLGALGAQCRWAACNIYSTLNEVAALAESGFPVFAWKGESEDDFWWCIDRCVNVVEGWQPNMILDDGGD  
 LTHWIYKYPNMFKKIKGIVEESVTGVHRLYQLSKAGKLCVPAMNVNDSVTKQFDNLYCCRESILDGLK  
 RTTDMFVGKQVVVCGYGEVKGCCAALKAMGSIYVYVTEIDPICALQACMDGFRLVKLNEVIRQVDIVIT  
 CTGNKNVVTREHLDRMKNSCIVCNMGSNTEIDVASLRTPEL TWERVRSQVDHVIWPDGKRIVLLAEGRL  
 LNLSCSTVPTFVLSITATTQALALIELYNAPEGRYKQDVYLLPKMDEYVASLHLPTFDAHLTEL TDEQA  
 KYLGLNKNGPFKPNYYRY

**TRTRPLE** – GFP Tag – V

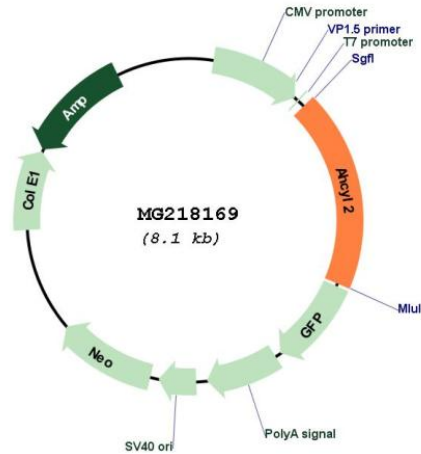
**Restriction Sites:**

Sgfl-Mlul

## Cloning Scheme:

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_001171001

**ORF Size:** 1524 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\\_001171001.1](#), [NP\\_001164472.1](#)

**RefSeq Size:** 4928 bp

**RefSeq ORF:** 1527 bp

**Locus ID:** 74340

**UniProt ID:** [Q68FL4](#)

**Cytogenetics:** 6 A3.3

**Gene Summary:** May regulate the electrogenic sodium/bicarbonate cotransporter SLC4A4 activity and Mg(2+)-sensitivity. On the contrary of its homolog AHCYL1, does not regulate ITPR1 sensitivity to inositol 1,4,5-trisphosphate.[UniProtKB/Swiss-Prot Function]