

## Product datasheet for **MG208438**

### Asic1 (NM\_009597) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Asic1 (NM_009597) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Asic1
Synonyms:	Accn2; AI843610; ASIC; ASIC1a; B530003N02Rik; BNaC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208438 representing NM\_009597  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAAGTGAAGACCGAGGAGGAGGTGGTGGTGTCCAGCCGGTGAAGCATCCAGGCTTTTGCCAGCA  
 GCTCCACGCTGCACGGTCTTGCCACATCTTCTCTATGAGCGGCTGTCTCTGAAGCGGGACTGTGGGC  
 CCTGTGTTTCTGGGTTCTGGCCGCTCTGTGTGTGTGCACTGAGCGTGTGCACTACTACTCTCTGC  
 TACCACCAGTCAACAGCTCGACGAGGTGGTGCCTCCAGCTCACCTCCCTGCCGCTACTCTCTGCA  
 ACCTCAATGAGTTTCGTTTAGCCAAGTCTCCAAGAATGACCTGTACCATGCTGGGGAAGTGTGGCCCT  
 GCTCAACAACAGGTATGAGATACCGGACACAGATGGCTGATGAAAAGCAGCTGGAGATATTGCAGGAC  
 AAGGCCAAGTCCGTAGCTTCAAGCCCAAGCCCTTCAACATGCGTGAATCTACGACAGAGCAGGGCATG  
 ACATTCGAGACATGCTTCTCTGTGCCACTTCCGAGGGGAGGCCGTCAGCGCTGAAGACTCAAAGTGGT  
 CTTACGCGGTATGGGAAGTGTACACATCAACTCGGGCAAGATGGGCGGCCACGGCTGAAGACCATG  
 AAAGGTGGGACTGGCAACGGCCTGGAGATCATGCTGGACATTAGCAAGATGAATACTTGCCTGTGTGGG  
 GAGAGACTGATGAGACATCGTTCGAAGCAGGCATCAAAGTGCAGATCCACAGTCAGGACGAGCCTCCTTT  
 CATCGACCAGCTGGGCTTTGGCGTGGCCCCAGGCTTCCAGACGTTTGTGTCTTCCAGGAGCAGAGGCTC  
 ATCTACCTGCCCTCCCCCTGGGGACCTGCAATGCTGTTACCATGGACTCGGATTTCTTCGACTCTACA  
 GCATCACGGCCTGCCGATTGATTGTGAAACCCGTTACCTGGTGGAAAAGTCAACTGCCGATGGTGA  
 CATGCCAGGGGATGCCCCATACTGTACTCCGGAGCAGTACAAGGAGTGTGCAGACCCTGCCCTGGACTTC  
 CTAGTGGAGAAAGACCAGGAATACTGTGTGTGTGAGATGCCCTGCAACCTGACCCGCTACGGCAAGGAGC  
 GTCCATGGTCAAGATCCCCAGAAAGCCTCAGCCAAGTACCTGGCCAAGAAGTTCAACAATCTGAACA  
 GTACATAGGGGAGAATATTCTGGTGTGGACATTTTCTTTGAAGTCTCAACTATGAGACCATCGAGCAG  
 AAGAAGGCCTATGAGATCGCAGGCTTTTGGGTGACATCGGGGGCCAGATGGGATTGTTTCATCGGGCCA  
 GCATCCTCACAGTGTGGAAGTCTTTGACTATGCCTATGAGGTCATTAAGCACCGGCTGTGTAGACGTGG  
 GAAGTGCAGAAAGGAGGCTAAGAGGAACAGCGCAGATAAGGGCGTGGCGCTCAGCCTGGATGACGTCAA  
 AGACACAATCCCTGCGAGAGCCTCCGAGGACATCCTGCCGGGATGACGTACGCTGCCAACATCCTACCTC  
 ACCATCCCCTCGAGGACGTTTGGAGACTTTACCTGC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG208438 representing NM\_009597  
 Red=Cloning site Green=Tags(s)

MELKTEEEVGGVQPVSIQAFASSTLHGLAHIFSYERLSLKRALWALCFLGSLAVLLCVCTERVQYYFC  
 YHHVTKLDEVAASQLTFPAVTLNLFNFRFSQVSKNDLYHAGELLALLNNRYEIPDTQMADEKQLEILQD  
 KANFRSFKPKPFNMREFYDRAGHDIRDMLLSCHFGEACSAEDFKVVFTRYGKCYTFNSGQDGRPRPKTM  
 KGGTGNGLEIMLDIQQDEYLPVWGETDETSFEAGIKVQIHSQDEPPFIDQLGFGVAPGFQTFVSCQEQL  
 IYLPSPWGTCAVMTDSDFDSYSITACRIDCETRYLVENCNRMVHMPGDAPYCTPEQYKCADPALDF  
 LVEKDQEYCVCEMPCNLTRYGKELSMVKIPSKASAKYLAKKFNKSEQYIGENILVLDIFFEVLNYETIEQ  
 KKAYEIAGLLDIGQMGLFIGASILTVLELFDYAYEVIKHRLCRRGKCQKEAKRNSADKGVSLDDVK  
 RHNPCESLRGHPAGMTYAANILPHHPARGTFEDFTC

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_009597

**ORF Size:** 1578 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\\_009597.2](#)

**RefSeq Size:** 3800 bp

**RefSeq ORF:** 1581 bp

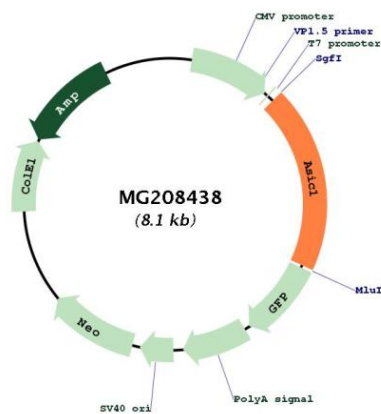
**Locus ID:** 11419

**UniProt ID:** [Q6N XK8](#)

**Cytogenetics:** 15 F1

**Gene Summary:**

Proton-gated sodium channel; it is activated by a drop of the extracellular pH and then becomes rapidly desensitized. Generates a biphasic current with a fast inactivating and a slow sustained phase. Has high selectivity for sodium ions and can also transport lithium ions with high efficiency. Can also transport potassium ions, but with lower efficiency. It is nearly impermeable to the larger rubidium and cesium ions. Mediates glutamate-independent Ca(2+) entry into neurons upon acidosis. This Ca(2+) overloading is toxic for cortical neurons and may be in part responsible for ischemic brain injury. Heteromeric channel assembly seems to modulate channel properties. Functions as a postsynaptic proton receptor that influences intracellular Ca(2+) concentration and calmodulin-dependent protein kinase II phosphorylation and thereby the density of dendritic spines. Modulates activity in the circuits underlying innate fear.[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for MG208438