

## Product datasheet for MC229693

### Scn5a (NM\_001253860) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Scn5a (NM_001253860) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Scn5a
Synonyms:	mH1; Nav1.5; Nav1.5c; SkM1; SkM2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC229693 representing NM_001253860 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAAACCTTCCTGTTACCTCGGGGCACCAGCAGCTTCCGTAGGTTACCCGGGAGTCACTGGCGGCCA  
TCGAGAAGCGCATGGCTGAAAAACAAGCCCGTGGTTCGGCCACCTCACAGGAGAGCCGTGAGGGCCCTGCC  
AGAGGAGGAGGCTCCCCGGCCCCAGCTGGACCTACAGGCTCCAAAAAGCTGCCAGATCTCTATGGCAAC  
CCACCCGAGAGCTCATTGGGGAGCCCTGGAAGACCTGGACCCTTTCTATAGTACCCAGAAGACCTTCA  
TCGTGCTGAATAAGGGCAAAACCATCTCCGGTTCAGTGCACCAATGCCTTGTACGTCCTCAGCCCTT  
CCACCCGGTGCAGAGCGGCTGTGAAGATTTGGTACATTTCGCTCTTCAGCATGCTCATCATGTGCACC  
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TCACCGCCATCTACACCTTTGAGTCTCTGGTCAAGATTCTAGCTCGAGGCTTCTGCCTGCATGCGTTCAC  
CTTCTCCGGGACCCGTGGAACCTGGCTAGACTTCAGTGTGATCGTCATGGCATAACAACTGAATTTGTG  
GACCTGGGCAATGTCTCAGCCTTACGCACCTCCGAGTCTCCGGGCCCTGAAAACTATATCGGTCATTT  
CAGGCCTGAAGACAATCGTGGAGCCCTAATCCAGTCTGTGAAGAAGCTAGCCGATGTGATGGTCTTAC  
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CCCAGTAACCAACCATGAGAGAAGGAGCAAGAGGAGGAAACGACTGTCTTCCAGGGACAGAGGATGGCGGA  
GATGACAGGCTCCCAAGTCGGACTCAGAAGACGGTCCAGAGCATTGAATCAGCTCAGCCTCACCACATG



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GGCTCAGCCGGACATCCATGAGGCCCGCTCCAGCCGAGGGAGCATTTCACATTCGGGCGACGGGACCA  
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 ACTGCGTGCATTCGACCCTGAGGGCTTTGTACGATTTCGAGGGCATGAGGGTGGTGGTCAACGCGCTG  
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 CTACACCATTGTGAACAACAAGAGCGAGTGTGAGTCTTCAACGTGACTGGAGAGTTGTACTGGACCAAG  
 GTGAAAGTCAACTTTGACAACGTGGGGCTGGGTACCTGGCCCTGCTGCAGGTGGCGACATTTAAGGCT  
 GGATGGACATCATGTATGCGGCTGTGGACTCCAGAGGGTATGAAGAGCAGCCGAGTGGGAGGACAACCT  
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 GAACAAGTACCAGGGTTTCATATTCGACATTGTGACCAAGCAGGCCTTCGATGTTACCATCATGTTCTCT  
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 CCAAGATCAACCTGCTCTTCTGCGCCATCTTACAGGAGAGTGTATTGTCAAGATGGCTGCCCTGCGCCA  
 CTATTACTTACCACAGCTGGAACATCTTCGATTTCTGTTGTGTCATCCTCTCCATCGTTGGCACTGTC  
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 GCCGATCCTCAGGCTGATCCGAGGAGCAAGGGGATTCCGACGTTGCTCTTCCGCTCATGATGTCCT  
 GCCCGCCCTTCAACATCGGCCTCCTCTCTTCTCTGTCATGTTTCATCTACTCCATCTTCCGATGGCC  
 AACTTTGCTACGTCAAGTGGGAGGCTGGCATCGACGACATGTTCAACTTCCAGACCTTTGCCAACAGCA  
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ACCCCCCTACTGTGACCCCAACCTGCCCAACAGCAATGGCTCCAGGGGAACTGTGGGAGCCCAGCAGTG  
 GGCATCCTCTTCTTACCACCTACATCATCTCCTTCTCATCGTGGTCAACATGTACATTGCCATCA  
 TCCTGGAGAACTTCAGTGTGGCCACAGAAGAGAGCACAGAGCCCTGAGCGAGGATGACTTCGACATGTT  
 CTATGAGATCTGGGAGAAGTTCGACCCGGAGGCCACCCAGTTCATTGAGTATTTGGCCCTGTCCGACTTT  
 GCCGATGCCCTGTCTGAGCCACTCCGCATCGCCAAGCCCAACCAGATAAGCCTCATCAATATGGACCTGC  
 CCATGGTGAGCGGGACCGCATCCACTGTATGGACATCCTGTTTCGCCTTACCAAGAGGGGTGCTCGGGGA  
 GTCTGGGAGATGGATGCCCTGAAGATCCAGATGGAGGAGAAATTCATGGCGGCCAATCCTTCCAAGATC  
 TCCTATGAGCCCATCACCACCACCTGCGGCGAAAACATGAGGAGGTGTCGGCCACGGTCATCCAGCGGG  
 CCTTCCGGAGGCACCTCCTGCAGCGCTCGGTGAAGCATGCTTCTTCTTCCGCCAGCAAGCGGGCAG  
 CAGTGGCCTCTCTGATGAGGATGCCCCGAGCGAGAGGGACTCATTGCCTACATGATGAATGAGAACTTC  
 TCCCGGCGCAGCGGTCCCTCTCCAGCTTCCATCTCCTCCACGTCCTTCCACCGTCCTATGACAGCG  
 TCACGAGGGCCACCAGTGATAACCTCCCAGTGCCTGCGTCCGACTACAGCCGAGCGAAGATCTTGAGA  
 CTTCCCTCCATCTCCAGATAGGGACCGAGAGTCTATAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001253860
- Insert Size:** 6063 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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\\_001253860.1](#), [NP\\_001240789.1](#)
- RefSeq Size:** 8287 bp
- RefSeq ORF:** 6063 bp
- Locus ID:** 20271
- UniProt ID:** [Q9JIV9](#)
- Cytogenetics:** 9 71.33 cM

**Gene Summary:**

This protein mediates the voltage-dependent sodium ion permeability of excitable membranes. Assuming opened or closed conformations in response to the voltage difference across the membrane, the protein forms a sodium-selective channel through which Na(+) ions may pass in accordance with their electrochemical gradient (PubMed:11834499, PubMed:23420830). It is a tetrodotoxin-resistant Na(+) channel isoform. This channel is responsible for the initial upstroke of the action potential. Channel inactivation is regulated by intracellular calcium levels (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) switches an exon in the coding region, compared to variant 1. The resulting protein (isoform 2) is the same length as isoform 1 yet it has a different sequence. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.