

## Product datasheet for MC224966

### Scn4a (NM\_133199) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Scn4a (NM_133199) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Scn4a
Synonyms:	mH2; Nav1.4; SkM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC224966 representing NM_133199 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGCTCATCTCTGCCACCCTGGTCCCCCTGGTCCCCACTGCCTGCGCCCTTCACCCAGAGT  
CCCTGGCAGCCATAGAACAGCGGGCAATGGAGGAGGAAGCCCGGCTGCAGCGGAACAAGCAATGGAGAT  
TGAAGAGCCTGAGCGGAAGCCACGCAGTGACCTGGAAGCTGGCAAGAACCTCCACTCATCTATGGGGAC  
CCCCACCTGAAGTCATTGGCGTCCCCCTGGAGGACCTGGACCCTTACTACAGTGACAAGAAGACCTTCA  
TTGTGCTCAACAAAGGAAAGGCCATCTCCGATTCTCTGCCACCCTGCCCTCTACATGCTGAGCCCTT  
CAGCATCGTCCGGCGGGTGGCTATCAAGGTGCTCATCCACGCGCTGTTCAGCATGTTTCATCATGATCACC  
ATCTTGACCAACTGCGTGTTCATGACCATGAGCAACCCGCTTCTTGGTCCAAGGACGTGGAGTACACCT  
TCACAGGGATCTACACCTTTGAGTCCCTCATTAAGATGCTGGCCCGAGGCTTTTGCATTGATGACTTCAC  
ATTCCTCCGAGACCCCTGGAACCTGGCTGGACTTCAGTGTATCACAATGGCGTACGTGACAGAGTTTGTG  
GACTTGGCAACATCTCAGCCCTGAGGACCTTCCGTGTGCTGCGGGCCCTGAAAACCATCACGGTCATCC  
CAGGGCTGAAGACGATCGTGGGAGCCCTGATCCAGTCTGTGAAAAGCTCTCGGATGTGATGATCCTCAC  
TGTCTTCTGCCTGAGCGTCTTTGCCCTGGTGGGCTGCAGCTTTTCATGGGAAACCTGCTCAGAAGTGC  
GTGCGTTGGCCCCGCCATGAATGACACCAACACCAGTGGTATGGTAATGATACGTGGTACGGCAATG  
ACACCTGGTACGGCAATGACACCTGGTATGGCAATGACACTTGGAAACAGCCAGGAGAGCTGGGTCAGCAA  
CTCTACCTTTGACTGGGAGGCTACATCAATGACGAAGGAACTTCTATTTCTTGGAGGGCTCCAATGAT  
GCCCTGCTCTGTGGGAATAGCAGTATGCGGGGACTGCCCTGAGGGCTACGAATGCATGAAGGCTGGGA  
GGAACCCCAACTATGGCTACACCAGCTACGACACCTTCAGCTGGGCTTCTGGCTCTCTCCGTCTCAT  
GACGCAGGACTACTGGGAGAACCTTTCCAGCTGACCCTTCGAGCCGCTGGCAAGACCTACATGATCTTC  
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ATGCTGAGCAGAATGAGGCTACCCTGGCCGAAGACCAGGAGAAAGAGGAGGATCCAACAGATGCTTGA  
AAAATTCAAAAACATCAGGAGGAACTGGAAAAGCGAAGGCTGCCAGGCTCTGGAAGGTGGAGAGGAG



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GCAGATGGGGACCCAACCCACAGCAAAGACTGCAATGGTAGCCTGGATACATCCGGGGAGAAGGGGCCCC  
 CAAGGCCAAGCTGCAGCGCAGAGAGTGCATCTCAGATGCATGGAGGAGCTGGAAGAGGCCCATCAGAA  
 GTGCCCCCATGGTGGTACAAGTGTGCACACAAAGTGTCTCATCTGGAAGTGTGTGCCCGTGGGTGAAG  
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 CAACTTGGTCTTACGGGCATCTTCACTGCAGAGATGGTGTGAAGTTGATTGCTATGGACCCCTACGAA  
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 CAGCGCGGAGTATCAAACCATCTGGAATATGCTGACAAGGTCTTACCTACATCTTTCATCTGGAGA  
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 TGAACGCCCTTCTGGGAGCCATCCCTTCCATCATGAACGTGTCTTGTCTGCCTCATCTTCTGGCTCAT  
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 CAAGGGTTGGATGGACATCATGTATGCAGCTGTGGACTCCCGGGGAAAAGAGGAGCAGCCAGACTACGAG  
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 CGGCCTCAGAACAAGATCCAAGGCATGGTGTACGACTTCGTGACAAGCAGGTGTTTGACATCTCTATCA  
 TGATCCTCATCTGCCTCAACATGGTGTGACGATGATGGTGGAGACGGATGACCAGAGCCAGCTCAAGGTGGA  
 CATCCTGTATAACATCAACATGGTCTTTCATTATCGTCTTTCACAGGGGAGTGTGTGCTCAAGATGTTTGGC  
 CTGCGCCATACTACTTACCATTGGCTGGAATATCTTCGACTTCGTGGTGTGATCTTGTCCATTGTGG  
 GTCTCGCACTCTCTGACTTGATACAGAAATACTTTGTGTACCCACACTGTTCCGTGTGATCCGATTGGC  
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 GCATGTCTAACTTCGCCTACGTCAAGAAAGAGTCCGGCATCGACGACATGTTCAACTTTGAGACCTTTGG  
 CAACAGTATCATCTGCCTCTTTCGAGATCACCACGTGAGTGGCTGGGACGGGCTTCTGAACCCCATCCTC  
 AACAGTGGGCCCCAGACTGTGACCCGACATTGGAGAACCAGGCACCAATATCAAGGGTACTGCGGCA  
 ACCCATCCATCGGCATCTGTTTCTTCTGCAGCTACATCATCTCTTCTCCTCATCGTGGTCAACATGTA  
 CATTGCCATCATCTAGAGAATTTCAATGTGGCCACTGAAGAGAGCAGTGAAGCCCTCTGTGAGGATGAC  
 TTCGAGATGTTCTATGAGACCTGGGAGAAGTTGACCCCGATGCAACTCAGTTTATCGACTACAGCCGCC  
 TTTCTGACTTTGTGGACACCCTGCAGGAGCCCTTGAATAATGGCAAGCCCAATAAGATCAAGCTTATCAC  
 ATTAGACCTGCCATGGTACCCGGGACAAGATCCACTGCCTGGACATCTCTTTGCCCTGACCAAAAGAG  
 GTACTGGGTGACTCTGGGAAAATGGATGCTCTCAAACAGACCATGGAGGAGAAGTTTATGGCAGCTAACC

CCTCCAAGGTCTCCTATGAGCCCATCACCACCACCCTCAAGAGGAAGCAGGAGGAGGTGTGTGCTATCAA  
 AATCCAGAGGGCTTACCGCCGCATCTGCTGCAGCGCTCTGTGAAGCAGGCCTTTACATGTACCGCCAC  
 AGCCAGGAAGGCAATGGCGATGGGGCCCTGAGAAGGAGGGATTGCTTGCCAACACCATGAACAAGATGT  
 ATGGCTCTGAGAAAGAGGACAACGGTGTGCAGAGCCAGGGGGAGAAAGAGAACTCAACAGAGGATGC  
 TGGACCCACCACGGAGGTACAGCCCCAGCAGCTCGGACACTGCCCTGACTCCTCCTCCTCCTCCT  
 CCTCCACCATCATCACCACCACAAGGGCAGACAGTGCGCCAGGGGTCAAAGAGTCTCTTGTCTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_133199
- Insert Size:** 5526 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).
- 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\\_133199.2](#), [NP\\_573462.2](#)
- RefSeq Size:** 6598 bp
- RefSeq ORF:** 5526 bp
- Locus ID:** 110880
- UniProt ID:** [Q9ER60](#)
- Cytogenetics:** 11 68.91 cM
- Gene Summary:** Pore-forming subunit of a voltage-gated sodium channel complex through which Na(+) ions pass in accordance with their electrochemical gradient. Alternates between resting, activated and inactivated states (PubMed:11834499). Required for normal muscle fiber excitability, normal muscle contraction and relaxation cycles, and constant muscle strength in the presence of fluctuating K(+) levels (PubMed:18317596, PubMed:21881211).[UniProtKB/Swiss-Prot Function]