

## Product datasheet for **MG216626**

### Scn4a (NM\_133199) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Scn4a (NM\_133199) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Scn4a  
**Synonyms:** mH2; Nav1.4; SkM1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG216626 representing NM\_133199  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCAGCTCATCTCTGCCACCCTGGTCCCCCTGGTCCCCACTGCCTGCGCCCTTCACCCAGAGT  
 CCCTGGCAGCCATAGAACAGCGGGCAATGGAGGAGGAAGCCCGGCTGCAGCGGAACAAGCAATGGAGAT  
 TGAAGAGCCTGAGCGGAAGCCACGCAGTGACCTGGAAGCTGGCAAGAACCTCCACTCATCTATGGGGAC  
 CCCCCACCTGAAGTCATTGGCGTCCCCCTGGAGGACCTGGACCCTTACTACAGTGACAAGAAGACCTTCA  
 TTGTGCTCAACAAAGGAAAGGCCATCTCCGATTCTCTGCCACCCTGCCCTCTACATGCTGAGCCCTT  
 CAGCATCGTCCGGCGGGTGGCTATCAAGGTGCTCATCCACGCGCTGTTCAGCATGTTTCATCATGATCACC  
 ATCTTGACCAACTGCGTGTTCATGACCATGAGCAACCCGCTTCTTGGTCCAAGGACGTGGAGTACACCT  
 TCACAGGGATCTACACCTTTGAGTCCCTCATTAAGATGCTGGCCCGAGGCTTTTGCATTGATGACTTCAC  
 ATTCCTCCGAGACCCCTGGAACCTGGCTGGACTTCAGTGTATCACAATGGCGTACGTGACAGAGTTTGTG  
 GACTTGGGCAACATCTCAGCCCTGAGGACCTCCGTGTGCTGCGGGCCCTGAAAACCATCACGGTCATCC  
 CAGGGCTGAAGACGATCGTGGGAGCCCTGATCCAGTCTGTGAAAAAGCTCTCGGATGTGATGATCCTCAC  
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 GCCCTGCTCTGTGGGAATAGCAGTATGCGGGGACTGCCCTGAGGGCTACGAATGCATGAAGGCTGGGA  
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GCAGATGGGGACCCAACCCACAGCAAAGACTGCAATGGTAGCCTGGATACATCCGGGGAGAAGGGGCCCC  
 CAAGGCCAAGCTGCAGCGCAGAGAGTGCATCTCAGATGCATGGAGGAGCTGGAAGAGGCCCATCAGAA  
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 TTTCTGACTTTGTGGACACCCTGACAGGACCCCTGAAAATTGCCAAGCCCAATAAGATCAAGCTTATCAC  
 ATTAGACCTGCCATGGTACCCGGGACAAGATCCACTGCCTGGACATCTCTTTGCCCTGACCAAAAGAG  
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CCTCCAAGGTCTCCTATGAGCCCATCACCACCACCCTCAAGAGGAAGCAGGAGGAGGTGTGTGCTATCAA  
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 AGCCAGGAAGGCAATGGCGATGGGGCCCTGAGAAGGAGGGATTGCTTGCCAACACCATGAACAAGATGT  
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 TGGACCCACCACGGAGGTACAGCCCCAGCAGCTCGGACACTGCCCTGACTCCTCCTCCTCTCTCTCTCT  
 CCTCCACCATCATCACCACCACAAGGGCAGACAGTGCGCCAGGGGTCAAAGAGTCTCTTGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG216626 representing NM\_133199  
 Red=Cloning site Green=Tags(s)

MASSSLPTLVPPGPHCLRPFTPESLAAIEQRAMEEEARLQRNKQMEIEEPPERKPRSDLEAGKNLPLIYGD  
 PPPEVIGVPLELDPYYSKKTFFIVLNKGKAIKFRFSATPALYMLSPFSIVRRVAIKVLIHALFSMFIMIT  
 ILTNCVFMMSNPPSWSKDVEYFTGIYTFESLIKMLARGFCIDDFTLRDPWNWLDVSVITMAYVTEFV  
 DLGNISALRTRFRVLRALKTITVIPGLKTIYGALIQSVKKLSDVMILTVFCLSVFALVGLQLFMGNLRQKC  
 VRWPPPMNDTNTWYGNWTWYGNWTWYGNWTWYGNWTWNSQESWVSNSTFDWEAYINDEGNFYFLEGSND  
 ALLCGNSSDAGHCPEGYECMKAGRPNPYGYTSYDTFSWAFALFRLMTQDYWENLFQLTLRAAGKTYMIF  
 FVVIIFLGSFYLINLILAVVAMAYAEQNEATLAEDQEKEEEFQQMLEKFKKHQEELEKAKAAQALEGGEE  
 ADGDPHSHKDCNGSLDTSGEKGPSPSCSAESAISDAMEELEEAHQKCPPWWYKCAHKVLINWCCAPWVK  
 FKHIILLIVMDPFVLDGITICIVLNTLFMAMEHYPMTEHFDNVLVGNLVTGIFTAEMVLKLIAMDPEY  
 YFQQGWNIFDSFIVTLSELVLANVQGLSVLRSFRLRVFKLAKSWPTLNMLIKIIGNSVGALGNLTLV  
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 NPYLTIHVPIASEESDLEMPTEETDTFSEPEDIKPLQPLYDGNSSVCSTADYKPEEDPEEQAEENPE  
 GELPEECFTEACVKRCPCLYVDISQGRGKMWWTLRRACFKIVEHNWFETFIVFMILLSSGALAFEDIYIE  
 QRRVIQITILEYADKVFTYIFILEMLLKWVAYGFKVYFTNAWCWLDLIVDVSIIISLVANWLGSELGPIK  
 SLRTRLRALRPLRALSFRFEGMRVVNALLGAIPSIMNVLLVCLIFWLIFSIMGVNLFAGKFYYCINTTSE  
 RFDISVNVNKSECESLMYTGQVRWMNVKVNVDNVLGYLSLLQVATFKGWMIMYAAVDSREKEEQPDYE  
 VNLVYMYL YFVIFIFGSFFTLNLFIVGVIDNFNQKKKFGGKDFMTEEQKYYNAMKKLGSKKPKPIPI  
 RPQNKIQGMVYDFVTKQVFDISIMILICLNMVMMVETDDQSQLKVDILYNINMVFIIIVFTGECVLKMF  
 LRHYFTIGWNI FDFVIVLISIVGLALSILQKYFVSPTLFRVIRLARIGRVLRLIRGAKGIRTLFALM  
 MSLPALFNIGLLLFLVMFIYSIFGMSNFAYVKESGIDDMFNFTFGNSIICLFEITTSAGWDGLLNPI  
 NSGPPDCDPTLENPGTNIKGDGNSIGICFFCSYIIISFLIVVNMVIAIILENFVATEESSEPLCEDD  
 FEMFYETWEKFDPAQFIDYSRLSDFVDTLQEPLKIAKPNKIKLITLDLPMVPGDKIHCLDILFALTK  
 VLGDSEMDALKQTMEEKFMAANPSKVSYPITTLKRKQEEVCAIKIQRAYRRHLLQRSVKQASMYRHS  
 SQEENGDAPEKEGLLANTMKNMYGSEKEDNGVQSQGEKEKDSTEDAGPTTEVTAPSSSDTALTPPPSP  
 PPPSSPPQQTVRPGVKESLV

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI



<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_133199.2</a> , <a href="#">NP_573462.2</a>
<b>RefSeq Size:</b>	6598 bp
<b>RefSeq ORF:</b>	5526 bp
<b>Locus ID:</b>	110880
<b>UniProt ID:</b>	<a href="#">Q9ER60</a>
<b>Cytogenetics:</b>	11 68.91 cM
<b>Gene Summary:</b>	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]