

## Product datasheet for RC218290

### SCN4A (NM\_000334) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SCN4A (NM_000334) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SCN4A
Synonyms:	CMS16; HOKPP2; HYKPP; HYPP; Na(V)1.4; NAC1A; Nav1.4; SkM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218290 representing NM_000334 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGACCATCTCTGTGCACCCTGGTGCCTCTGGCCCTGAGTGCTTGCGCCCTTACCCGGGAGT  
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CTGGAAGGTGGGGAGGCAGATGGGGACCCAGCCCATGGCAAAGACTGCAATGGCAGCCTGGACACATCGC  
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**Protein Sequence:**

>RC218290 representing NM\_000334  
 Red=Cloning site Green=Tags(s)

MARPSLCTLVPLGPECLRPFTRESLAAIEQRAVEEEARLQRNKQMEIEEPERKPRSDLEAGKNLPMIYGD  
 PPPEVIGIPILEDLDPYYSNKKTFIVLNKGAIFRFSATPALYLLSPFSVRRGAIKVLIHAF SMFIMIT  
 ILTNCVFMMSDPPPWSKNVEYFTFTGIYTFESLIKILARGFCVDDFTFLRDPWNWLDVSVIMMAYLTFV  
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 VRWPPFNDTNTWYSNDTWYGNMTWYGNEMWYGNDSWYANDTWNASHASWATNDTFDWDAYISDEGNFYF  
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 VLKMLALRQYYFTVGWNIFDFVVVILSIVGLALSDLIQKYFVSPTLFRVIRLARIGRVLRLIRGAKGIRT  
 LLFALMMSLPALFNI GLLLFLVMFIYSIFGMSNFAYVKKESGIDDMFNFTFGNSIICLFEITTSAGWDG  
 LLNPILNSGPPDCPNLENPGTSVKGDCGNPSIGICFFCSYIIISFLIVNMYIAIILENFVATEESSE  
 PLGEDDFEMFYETWEKFDPDATQFIAYSRLSDFVDTLQEPLRIAKPNKIKLITLDLPMVPGDKIHCLDIL  
 FALTKEVLGDSGEMDALKQTMEEFMAANPSKVS YEPITTTLKRKH EEVCAIKIQRAYRRHLLQRSMKQA  
 SYMYRSHDGSDDAPEKEGLLANTMSKMYGHENGNSSSPSPEEKGEAGDAGPTMGLMPISPSDTAWPPA  
 PPPGQTVRPGVKESLV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg4824\\_a02.zip](https://cdn.origene.com/chromatograms/mg4824_a02.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

**ACCN:**

NM\_000334

**ORF Size:**

5508 bp

**OTI Disclaimer:**

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_000334.4](#)

**RefSeq Size:** 7823 bp

**RefSeq ORF:** 5511 bp

**Locus ID:** 6329

**UniProt ID:** [P35499](#)

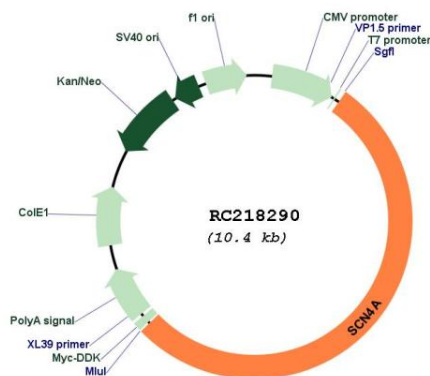
**Cytogenetics:** 17q23.3

**Protein Families:** Druggable Genome, Ion Channels: Sodium, Transmembrane

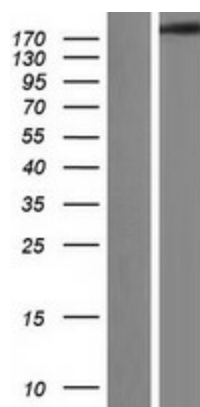
**MW:** 207.9 kDa

**Gene Summary:** Voltage-gated sodium channels are transmembrane glycoprotein complexes composed of a large alpha subunit with 24 transmembrane domains and one or more regulatory beta subunits. They are responsible for the generation and propagation of action potentials in neurons and muscle. This gene encodes one member of the sodium channel alpha subunit gene family. It is expressed in skeletal muscle, and mutations in this gene have been linked to several myotonia and periodic paralysis disorders. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC218290



Western blot validation of overexpression lysate (Cat# [LY424791]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218290 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).