

## Product datasheet for **RC228708**

### SCN1A (NM\_001165963) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SCN1A (NM_001165963) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SCN1A
Synonyms:	DEE6; DEE6A; DEE6B; DRVT; EIEE6; FEB3; FEB3A; FHM3; GEFSP2; HBSCI; NAC1; Nav1.1; SCN1; SMEI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-Myc-DDK (PS100007)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RC228708 representing NM_001165963 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCAAACAGTGCTTGTACCACCAGGACCTGACAGCTTCAACTTCTTACCAGAGAATCTCTTGCGG  
CTATTGAAAGACGCATTGCAGAAGAAAAGGCAAAGAATCCCAAACCAGACAAAAAGATGACGACGAAAA  
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TAGGAAAATAGCTATTAAGATTTTGGTACATTCATTATTCAGCATGCTAATTATGTGCACTATTTTGACA  
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**Protein Sequence:**

>RC228708 representing NM\_001165963  
 Red=Cloning site Green=Tags(s)

MEQTVLVPPGPDFSFFFTRESLAAIERRIAEEKAKNPKPKDKDDDENGPKPNSDLEAGKNLPIFYDIPP  
 EMVSEPLEDLDPYYINKKTFIVLNKGKAIFFRSATSALYILTPFNPLRKIAIKILVHSLFSLIMCTILT  
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 SFFTLNLFIGVIDNFNQKKKFGGQDIFMTEEQKKYNYAMKKGSKKPQKPIPRPGNKFGQMVDFVTR  
 QVFDISIMILICLNMVTMMVETDDQSEYVTTILSRINLVFVLFTEGCVLKLISLRHYFFITGWNIFDFV  
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 QFMFEKLSQFAALEPPLNLPQPNKLQLIAMDLPVMSGDRIHCLDILFAFTKRVLGESGEMDALRIQME  
 ERFMASNPSKVSYPITTTLKRKQEEVSAVIIQRAYRRHLLKRTVKQASFTYKNKIKGGANLLIKEDMI  
 IDRINENSITEKTDLTMSTAACPPSYDRVTKPIVEKHEQEGKDEKAKGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001165963

**ORF Size:** 6027 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.

**RefSeq:** [NM\\_001165963.1](#), [NP\\_001159435.1](#)

RefSeq ORF:	6030 bp
Locus ID:	6323
UniProt ID:	<a href="#">P35498</a>
Cytogenetics:	2q24.3
Protein Families:	Druggable Genome, Transmembrane
MW:	228.8 kDa
Gene Summary:	<p>Voltage-dependent sodium channels are heteromeric complexes that regulate sodium exchange between intracellular and extracellular spaces and are essential for the generation and propagation of action potentials in muscle cells and neurons. Each sodium channel is composed of a large pore-forming, glycosylated alpha subunit and two smaller beta subunits. This gene encodes a sodium channel alpha subunit, which has four homologous domains, each of which contains six transmembrane regions. Allelic variants of this gene are associated with generalized epilepsy with febrile seizures and epileptic encephalopathy. Alternative splicing results in multiple transcript variants. The RefSeq Project has decided to create four representative RefSeq records. Three of the transcript variants are supported by experimental evidence and the fourth contains alternate 5' untranslated exons, the exact combination of which have not been experimentally confirmed for the full-length transcript. [provided by RefSeq, Oct 2015]</p>