

Product datasheet for **RG220167**

SCN1A (NM_006920) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SCN1A (NM_006920) Human Tagged ORF Clone
Tag:	TurboGFP
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-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220167 representing NM_006920 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG220167 representing NM_006920
 Red=Cloning site Green=Tags(s)

MEQTVLVPPGPDFNFFTTRESLAAIERIAEAKAKNPKPKDKDDDENGPKPNSDLEAGKNLFFIYGDIPP
 EMVSEPLEDLDPYYINKKTFIVLNKGKAIFFRSATSALYILTPFNPLRKAIAIKILVHSLFSLMIMCTILT
 NCVFMTMSNPPDWTKNVXYTFTGIYTFESLIKIARGFCLEDFTLRDPWNWLDFTVITFAVYTFVLDG
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 PPTNASLEEHSIEKNITVNYNGTLINETVFEFDWKSQIYQDSRYHYFLEGLDALLCGNSSDAGQCEGYM
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 KVNFDNVGFGYLSLLQVATFKGWMIMYAADVSRNVELQPKYEEESLYMYLYFVIFIIFGSFFTLNLFIVG
 IIDNFNQKKKFGGQDIFMTEEKQKYNAMKLGSKPKQPIPRPGNKFQGMVDFVTRQVDFDISIMIL
 CLNMVMTMMVETDDQSEYVTTILSRINLVFIVLFTGECVLKLSLRYHYFTIGWNIFDFVVVILSIVGMFL
 AELIEKYFVSPTLFRVIRLARIGRILRLIKGAKGIRTLFALMMSLPALFNIQLLLFLVMFIYAIIFGMSN
 FAYVKREVGIDDMFNFTFGNSMICLFQITTSAGWDGLLAPILNSKPPDCDPNKVNPVSSVKGDCGNPSV
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 KTDLTMSTAACPPSYDRVTKPIVEKHEQEGKDEKAKGK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_006920

ORF Size: 5994 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 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_006920.2](#), [NP_008851.2](#)

RefSeq Size: 6046 bp

RefSeq ORF: 5997 bp

Locus ID: 6323

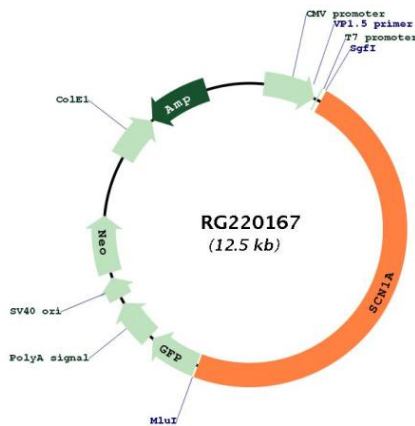
UniProt ID: [P35498](#)

Cytogenetics: 2q24.3

Protein Families: Druggable Genome, Transmembrane

Gene Summary: 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]

Product images:



Circular map for RG220167