

## Product datasheet for RC214689

### Nav1.5 (SCN5A) (NM\_000335) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nav1.5 (SCN5A) (NM_000335) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nav1.5
Synonyms:	CDCD2; CMD1E; CMPD2; HB1; HB2; HBBB; HH1; ICCD; IVF; LQT3; Nav1.5; PFHB1; SSS1; VF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214689 representing NM_000335 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
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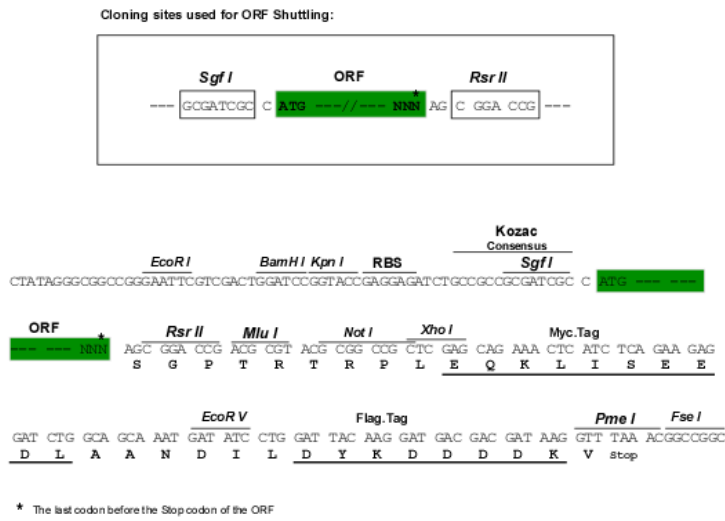
**Protein Sequence:**

>RC214689 representing NM\_000335  
 Red=Cloning site Green=Tags(s)

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 ITTTLRRKHVEVSAMVIQRAFRRHLLQRSLKHASFLFRQQAGSGLSEEDAPERGLIAYVMSENFSRPLG  
 PPSSSSISSTSFPPSYDSVTRATSDNLQVRGSDYSHSEDLADFPSPDRDRESIV

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDK

Chromatograms: [https://cdn.origene.com/chromatograms/mg4283\\_b02.zip](https://cdn.origene.com/chromatograms/mg4283_b02.zip)  
 Restriction Sites: Sgfl-RsrII  
 Cloning Scheme:



ACCN: NM\_000335

ORF Size: 6045 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\\_000335.5](#)

**RefSeq Size:** 8526 bp

**RefSeq ORF:** 6048 bp

**Locus ID:** 6331

**UniProt ID:** [Q14524](#)

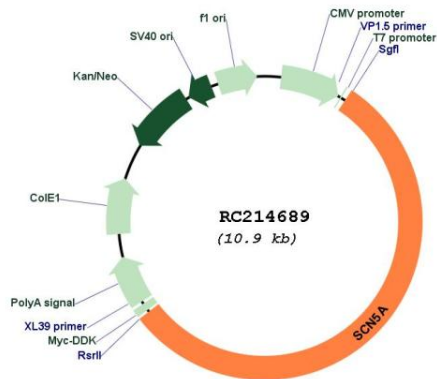
**Cytogenetics:** 3p22.2

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

**MW:** 226.6 kDa

**Gene Summary:** The protein encoded by this gene is an integral membrane protein and tetrodotoxin-resistant voltage-gated sodium channel subunit. This protein is found primarily in cardiac muscle and is responsible for the initial upstroke of the action potential in an electrocardiogram. Defects in this gene are a cause of long QT syndrome type 3 (LQT3), an autosomal dominant cardiac disease. Alternative splicing results in several transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC214689