

## Product datasheet for **RG230738**

### Nav1.6 (SCN8A) (NM\_001177984) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nav1.6 (SCN8A) (NM_001177984) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SCN8A
Synonyms:	BFIS5; CERIII; CIAT; DEE13; EIEE13; MED; MYOCL2; NaCh6; Nav1.6; PN4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG230738 representing NM_001177984 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGCGGGCTGCTTGACCACCAGGCCCTGATAGTTTCAAGCCTTTCACCCCTGAGTCACTGGCAA  
ACATTGAGAGGCGCATTGCTGAGAGCAAGCTCAAGAAACCACCAAGGCCGATGGCAGTCATCGGGAGGA  
CGATGAGGACAGCAAGCCCAAGCCAAACAGCGACCTGGAAGCAGGGAAGAGTTTGCCTTTCATCTACGGG  
GACATCCCCCAAGCCTGGTTGCAGTTCCTTGGAGGACTTTGACCCATACTATTTGACGCAGAAAACT  
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AGACGTAACAGGAGAAAGAAGAGGAAGCAAAAGGAACTCTCTGAAGGAGAGGAGAAAGGGGATCCCGAGA  
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG230738 representing NM\_001177984  
 Red=Cloning site Green=Tags(s)

MAARLLAPPGPSFKPFTPELANIERRIAESLKKKPPKADGSHREDEDSKPKPNSDLEAGSLPFIYG  
 DIPQGLVAVPLEDFDPYYLTQKTFVVLNRGKTLFRFSATPALYLSPFNLIRRIAIKILIHVSFMIIMC  
 TILTNCVFMFTSNPPDWSKNVEYFTFTGIYTFESLVKIIARGFCIDGFTFLRDPWNWLDVSVIMMAYITEF  
 VNLGNVSALRTRFVLRALKTISVIPGLKTIVGALIQSVKLLSDVMILTVFCLSVFALIGLQLFMGNLRNK  
 CVVWPIFNESYLENGTKGFDWEEYINNKTNFYTVPGMLEPLLGNSSDAGQCPEGYQCMKAGRNPNYGY  
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 GSKDKLDDTSSSEGSTIDIKPEVEEVPVEQPEEYLDPDACFTEGCVQRFKCCQVNIIEGLGKSWWILRKT  
 CFLIVEHNFETFIIFMILLSSGALAFEDIYIEQRKTIRTILEYADKVFTYIFILEMLLKWTA YGFVKFF  
 TNAWCWDLFLIVAVVVALVGAIPSIMNVLLVCLIFWLIFSIMGVNLFAGKYHYCFNETSEIRFEIEDVN  
 NKTECEKLMEGNTEIRWKNVKINFDNVGAGYLLALLQVATFKGWMDIMYAAVDSRKPDEQPKYEDNIYMY  
 IYFVIFIIIFGSFFTLNLFIGVIIDNFNQKKKFGGQDIFMTEEQKYYNAMKKGSKKPKQPIPRPLNKI  
 QGIVFDFVTQAFDIVIMMLICLNMVTMMVETDTQSKQMENILYWINLVFVIFFTCECVLKMALRHYYF  
 TIGWNIFDFVVVILSIVGMFLADIIEKYFVSPTLFRVIRLARIGRILRLIKGAKGIRTLFALMMSLPAL  
 FNIGLFLVLMFIFSIFGMSNFAYVKHEAGIDDMFNFTFGNSMICLFQITTSAGWDGLLLPILNRPPDC  
 SLDKEHPGSGFKGDCGNPSVGIFFFVSYIIISFLIVVNMIAIILENFSVATEESADPLSEDDFETFYEI  
 WEKFDPDATQFIEYCKLADFADALEHPLRVKPNTEIELIAMDLPVSGDRHCLDILFAFTRKVLGDSGE  
 LDILRQQMEERFVASNPSKVSYPEITTTLRKQEEVSAVVLQRAYRGHLARRGFICKKTTSNKLENGGTH  
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TRTRPLE - GFP Tag - V

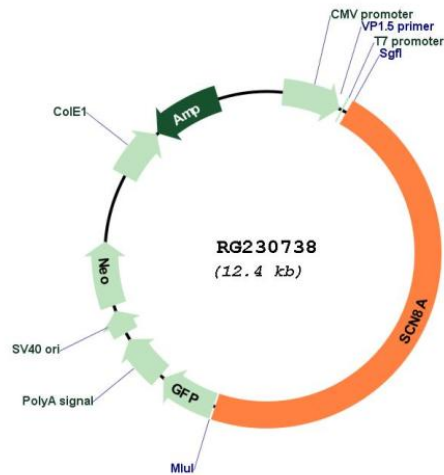
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001177984

ORF Size: 5817 bp

OTI Disclaimer: 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](#)

<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>	<u>NM_001177984.2</u>
<b>RefSeq Size:</b>	6968 bp
<b>RefSeq ORF:</b>	5820 bp
<b>Locus ID:</b>	6334
<b>UniProt ID:</b>	<u>Q9UQD0</u>
<b>Cytogenetics:</b>	12q13.13
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Sodium, Transmembrane
<b>Gene Summary:</b>	This gene encodes a member of the sodium channel alpha subunit gene family. The encoded protein forms the ion pore region of the voltage-gated sodium channel. This protein is essential for the rapid membrane depolarization that occurs during the formation of the action potential in excitable neurons. Mutations in this gene are associated with cognitive disability, pancerebellar atrophy and ataxia. Alternate splicing results in multiple transcript variants.[provided by RefSeq, May 2010]