

## Product datasheet for **RC223951**

### SCN4B (NM\_174934) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SCN4B (NM\_174934) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** SCN4B  
**Synonyms:** ATFB17; LQT10; Navbeta4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC223951 representing NM\_174934  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCGGGGCTGGGGACGGAGGCAAAGCCCCGGCGAGATGGCTGGGCACTGGGCTTTTGGGCTCTTCC  
TGCTCCCCGTAACCCTGTCGCTGGAGGTGTCTGTGGGAAAGGCCACCGACATCTACGCTGTCAATGGCAC  
GGAGATCCTGCTGCCCTGCACCTTCTCCAGCTGCTTTGGCTTCGAGGACCTCCACTTCGGTGGACCTAC  
AACAGCAGTGACGATTCAAGATTCTCATAGAGGGGACTGTGAAGAATGAGAAGTCTGACCCCAAGGTGA  
CGTTGAAAGACGATGACCGCATCACTCTGGTAGGCTCTACTAAGGAGAAGATGAACAACATTTCCATTGT  
GCTGAGGGACCTGGAGTTCAGCGACACGGCAAATACACCTGCCATGTGAAGAACCCCAAGGAGAATAAT  
CTCCAGCACCCACGCCACCATCTTCTCCAAGTCGTTGATAGACTGGAAGAAGTGGACAACACAGTGACAC  
TCATCATCCTGGCTGTCGTGGGCGGGTTCATCGGGCTCCTCATCCTCATCCTGCTGATCAAGAACTCAT  
CATCTTCATCCTGAAGAAGACTCGGGAGAAGAAGAAGGAGTGTCTCGTGAGCTCCTCGGGGAATGACAAC  
ACGGAGAACGGCTTGCCTGGCTCCAAGGCAGAGGAGAAACCACCTTCAAAAGTG

**ACGCGT**ACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC223951 representing NM\_174934  
Red=Cloning site Green=Tags(s)

MPGAGDGGKAPARWLGTLLGLFLLPVTLSLEVSVGKATDIYAVNGTEILLPCTFSSCFGFEDLHFRWY  
 NSSDAFKILIEGTVKNEKSDPKVTLKDDDRITLVGSTKEKMNNISIVLRDLEFSDTGKYTCHVKPNPKENN  
 LQHHATIFLQVVDRL E EVDNTVTLIILAVVGGVIGLLILILLIKKLIIFILKKTREKKKECLVSSSGNDN  
 TENGLPGSKAEKPPSKV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3036\\_e04.zip](https://cdn.origene.com/chromatograms/mg3036_e04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_174934

**ORF Size:** 684 bp

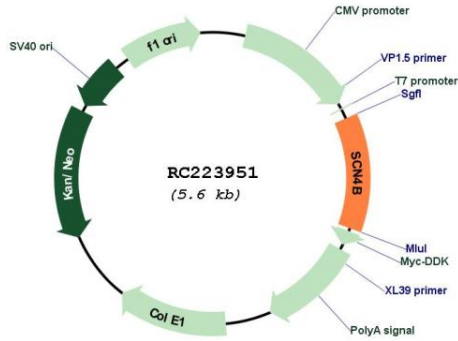
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](#)

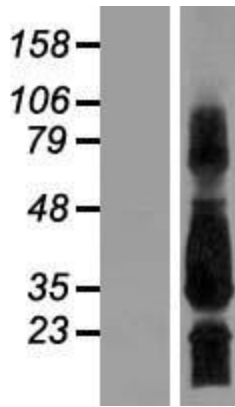
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_174934.4</a>
<b>RefSeq Size:</b>	4489 bp
<b>RefSeq ORF:</b>	687 bp
<b>Locus ID:</b>	6330
<b>UniProt ID:</b>	<a href="#">Q8IWT1</a>
<b>Cytogenetics:</b>	11q23.3
<b>Protein Families:</b>	Ion Channels: Sodium, Transmembrane
<b>MW:</b>	22 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is one of several sodium channel beta subunits. These subunits interact with voltage-gated alpha subunits to change sodium channel kinetics. The encoded transmembrane protein forms interchain disulfide bonds with SCN2A. Defects in this gene are a cause of long QT syndrome type 10 (LQT10). Three protein-coding and one non-coding transcript variant have been found for this gene.[provided by RefSeq, Mar 2009]

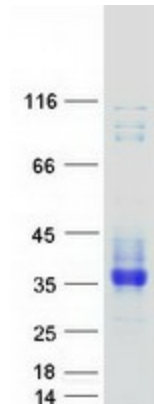
Product images:



Circular map for RC223951



Western blot validation of overexpression lysate (Cat# [LY406238]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223951 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SCN4B protein (Cat# [TP323951]). The protein was produced from HEK293T cells transfected with SCN4B cDNA clone (Cat# RC223951) using MegaTran 2.0 (Cat# [TT210002]).