

Product datasheet for SC324716

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OriGene Technologies, Inc.

SCN4B (NM_001142349) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: SCN4B (NM_001142349) Human Untagged Clone

Tag: Tag Free Symbol: SCN4B

Synonyms: ATFB17; LQT10; Navbeta4

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >SC123982 representing NM_174934.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGCCCGGGGCTGGGGACGGAGGCAAAGCCCCGGCGAGATGGCTGGGCACTGGGCTTTTGGGCCTCTTC
CTGCTCCCCGTAACCCTGTCGCTGAGGTGTCTTGTGGGAAAGGCCACCGACATCTACGCTGTCAATGGC
ACGGAGATCCTGCTGCCCTGCACCTTCTCCAGCTGCTTTTGGCTTCGAGGACCTCCACTTCCGGTGGACC
TACAACAGCAGTGACGCATTCAAGATTCTCATAGAGGGGACTGTGAAGAATGAGAAGTCTGACCCCAAG
GTGACGTTGAAAGACGATGACCGCATCACTCTGGTAGGCTCTACTAAGGAGAAGATGAACAACATTTCC
ATTGTGCTGAGGGACCTGGAGTTCAGCGACACGGGCAAATACACCTGCCATGTAAAGAACCCCAAGGAG
AATAATCTCCAGCACCACCACCATCTTCCTCCAAGTCGTTGATAGACTGGAAGAAGTGGACAACACA
GTGACACTCATCATCCTGGCTGTCGTGGGCGGGGTCATCGGGCTCCTCATCCTCATCCTGCTGATCAAG
AAACTCATCATCTTCATCCTGAAGAAGACTCGGGAGAAGAAGAAGAAGGAGTGTCTCGTGAGCTCCTCGGGG
AATGACAACACGGAGAAACGGCTTGCCTGGCTCCAAGGCAGAGAGAAACCACCTTCAAAAGTGTGA

Restriction Sites: Please inquire **ACCN:** NM 001142349

Insert Size: 4500 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.



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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: <u>NM 001142349.1</u>, <u>NP 001135821.1</u>

RefSeq Size: 4516 bp
RefSeq ORF: 357 bp
Locus ID: 6330
UniProt ID: Q8IWT1
Cytogenetics: 11q23.3

Protein Families: Ion Channels: Sodium, Transmembrane

Gene Summary: 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] Transcript Variant: This variant (3) differs in the 5' UTR and 5' coding region, compared to variant 1. These differences cause translation initiation at an in-frame downstream ATG and an isoform (3) which has a shorter N-terminus, compared to isoform 1. Translation initiation from the start codon 197 nucleotides upstream would subject the transcript to nonsense-

mediated mRNA decay (NMD).