

Product datasheet for **RG218018**

SCN2A (NM_001040143) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SCN2A (NM_001040143) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SCN2A
Synonyms:	BFIC3; BFIS3; BFNIS; DEE11; EA9; EIEE11; HBA; HBSCI; HBSCII; Na(v)1.2; NAC2; Nav1.2; SCN2A1; SCN2A2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218018 representing NM_001040143 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCACAGTCAGTGCTGGTACCGCCAGGACCTGACAGCTCCGCTTCTTTACCAGGGAATCCCTTGCTG
CTATTGAACAACGCATTGCAGAAGAGAAAGCTAAGAGACCCAAACAGGAACGCAAGGATGAGGATGATGA
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CCAGAGATGGTGTGTCAGTGCCCTGGAGGATCTGGACCCCTACTATATCAATAAGAAAACGTTTATAGTAT
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TATTAGAAAATTAGCTATTAAGATTTTGGTACATTCCTTTATTCAATATGCTCATTATGTGCAGGATTCCT
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 GAGAAAACCGATATGACGCTTCCACCAGTCTCCACCCTCGTATGATAGTGTACCAAACAGAAAAAG
 AAAAATTTGAAAAGACAAATCAGAAAAGGAAGACAAAGGAAAGATATCAGGAAAAGTAAAAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG218018 representing NM_001040143
 Red=Cloning site Green=Tags(s)

MAQSVLVPPGPDSEFRFFTTRESLAAIEQRIAEKAKRPKQERKDEDDENGPKPNSDLEAGKSLPFIYGDIP
 PEMVSVPLEDLDPYYINKKTFIVLNKGAISRFSATPALYILTPFNPIRKLAIKILVHSLFNMLIMCTIL
 TNCVFMMSNPPDWTKNVEYTFGTIYTFESLIKILARGFCLEDFFLRDPWNWLDFTVITFAVYVTEFVNL
 GNVSALRTFRVLRALKTISVIPGLKTIVGALIQSVKKLSDVMILTVFCLSVFALIGLQLFMGNLRNKCLQ
 WPPDNSSFEINITSFFNNSLDGNGTTFNRTVSIFNWEYIEDKSHFYFLEGQNDALLCGNSSDAGQCPEG
 YICVKAGRNPNGYTSFDTFSWAFSLFRLMTQDFWENLYQLTLRAAGKTYMIFVFLVIFLGSFYLINLI
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 SIRGSLFSPRRNSRASLFSFRGRAKDIGSENDFADEHSTFEDNDSRRDLSFVPHRHGERRHSNVSQASR
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 LNTLFMAMEHYPMTEQFSSVLSVGNLVFTGIFTAEMFLKIIAMDPIYFQEGWNIQDFIVLSLMEGL
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 VCKISNDCELPRWHMHDFHFSFLIVFRVLCGEWIETMWDCEVAGQTMCLTVFMMVMVIGNLVVNLFLA
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 GKLWWNLRKTCYKIVEHNWFETIVFMILLSSGALAFEDIYIEQRKTIKTMLEYADKVFTYIFILEMLLK
 WVAYGFQYFTNAWCWLDLFLIVDVSLSLTANALGYSELGAIKSLRTRLRALRPLRALSRFEGMRVVNAL
 LGAIPSIMNVLLVCLIFWLIFSIMGVNLFAGKFYHCINYTTGEMFDVSVVNNYSECKALIESNQTARWKN
 VKVNFNDVGLGYLSLLQVATFKGWMDIMYAAVDSRNLVLPKYEDNLYMYLYFVIFIIIFGSFFTLNLFIG
 VIIDNFNQKKKFGGQDIFMTEEQKKYNNAMKLGSKPKQKPIPRPANKFQGMVDFVTKQVFDISIMIL
 ICLNMVTMMVETDDQSQEMTNILYWINLVFIVLFTGECVLKLIISLRYYYFTIGWNIQDFVIVVILSIVGMF
 LAELIEKYFVSPTLFRVIRLARIGRILRLIKGAKGIRTLFALMMSLPALFNIGLLLFLVMFIYAFGMS
 NFAYVKREVGIDDMFNFTFGNSMICLFQITTSAGWDGLLAPILNSGPPDCDPKDHDPGSSVKGDCGNPS
 VGIFFFVSYIIISFLVVVNMYIAVILENFVATEESAEPLEDDFEMFYEVWEKFDPDATQFIEFAKLS
 FADALDPLLLIAKPNKVLIAMDLPMVSGDRIHCLDILFAFTKRVLGESGEMDALRIQMEERFASNSPK
 VSYEPITTTLRKQEEVSAIIIQRAYRRYLLKQVKVSSYIKKDKGKECDGTPIKEDTLIDKLNENSTP
 EKDTMTPSTTSPSPSYDSVTKPEKEKFEKDKSEKEDKGDIRESKK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_001040143.2
RefSeq Size:	8571 bp
RefSeq ORF:	6018 bp
Locus ID:	6326
UniProt ID:	Q99250
Cytogenetics:	2q24.3
Protein Families:	Druggable Genome, Ion Channels: Sodium, Transmembrane
Gene Summary:	<p>Voltage-gated sodium channels are transmembrane glycoprotein complexes composed of a large alpha subunit with four repeat domains, each of which is composed of six membrane-spanning segments, and one or more regulatory beta subunits. Voltage-gated sodium channels function in the generation and propagation of action potentials in neurons and muscle. This gene encodes one member of the sodium channel alpha subunit gene family. Allelic variants of this gene are associated with seizure disorders and autism spectrum disorder. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2016]</p>