

Product datasheet for **RG226269**

NCX1 (SLC8A1) (NM_001112802) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NCX1 (SLC8A1) (NM_001112802) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NCX1
Synonyms:	NCX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG226269 representing NM_001112802
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTACAACATGCGGCGATTAAGTCTTTACCCACCTTTCAATGGGATTCATCTGTAGTTACTGTGA
 GTCTTTATTTTCCCATGTGGACCATGTAATTGCTGAGACAGAAATGGAAGGAGAAGGAAATGAAACTGG
 TGAATGTACTGGATCATATTACTGTAAGAAAGGGGTGATTTTGCCCATTTGGGAACCCCAAGACCTTCT
 TTTGGGACAAAAATTGCTAGAGCTACTGTGATTTTGTGGCCATGGTCTACATGTTTCTGGAGTCTCTA
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 ACCCAATGGAGAGACCACCAAGACAACGTGAGGATCTGGAATGAAACAGTTTCTAACCTGACCTTGATG
 GCCCTGGGATCTTCTGCTCCTGAGATTCTCTTTCAGTAATTGAAGTGTGTGGCCATAAATTCACCTGCAG
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 AGCATCTTTGCCTACACCTGGCTTACATTATTTTGTCTGTCATATCTCCTGGTGTGTGGAGGTCTGGG
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 GTTTTACAAGTATGTCTACAAGAGGTATCGAGCTGGCAAGCAGAGGGGGATGATTATTGAACATGAAGGA
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 AGGCATTTTTACTTTGAGGAACCTGTGACTCATGTGAGTGAGAGCATTGGCATCATGGAGTGAAAGTA
 TTGAGAACATCTGGAGCTCGAGGAAATGTTATCGTTCCATATAAAACCATCGAAGGGACTGCCAGAGGTG
 GAGGGGAGGATTTGAGGACACTTGTGGAGAGCTCGAATTCAGAAATGATGAAATTTGTAAGATCATTAC
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 TGGATAAGAAGAGGAATGAAAGGTGGCTTACAATAACAGACGAATATGATGACAAGCAGCCACTGACCA
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 GCCTGAAAGATTCTGTGACTGCAGTCGTGTTTCGTGCGACTTGGAAACATCAGTGCCAGACACATTTGCCAG
 CAAAGTGGCAGCCACCCAGGACCAGTATGCAGACGCTCCATAGGTAACGTACGCGGCAGCAACGCGGTG
 AATGTCTTCTGGGAATCGGTGTGGCCTGGTCCATCGCTGCCATCTACCACGAGCAATGGGGAACAGT
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 GGTGCTGTGTATCGGCGGAGGCCAGAAATCGGAGGTGAGCTGGTGGGCCCCGGACTGCCAAGCTCCTC
 ACATCCTGCCTTTGTGCTCCTATGGCTTGTACATTTCTTCTCCTCCTGGAGGCCTACTGCCACA
 TAAAAGGCTTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG226269 representing NM_001112802
 Red=Cloning site Green=Tags(s)

MYNMRRLSLSPTFSMGFHLLVTVSLLFVSHVDHVAETEMEGEGNETGECTGSYYCKKGVILPIWEPQDPS
 FGDKIARATVYFVAMVYMFVFLGVSIIADRFMSSIEVITSQEKEITIKKPNGETTKTTVRIWNETVSNLTLM
 ALGSSAPEILLSVIEVCGHNFTAGDLGPSTIVGSAAFNMFIIALCVYVVPDGETRIRKIKHLRVFFVTAAM
 SIFAYTWLYIILSVISPGVVEVWEGLLTFPPICVVFVAVADRRLLFYKYVYKRYRAGKQRGMIEHEG
 DRPSSKTEIEMDGKVVNSHVENFLDGLVLEVDERDQDDEEARREMARILKELKQKHPDKEIEQLIELAN
 YQVLSQQQKSRFYRIQATRLMTGAGNILKRHAADQARKAVSMHEVNTVENDPVSKIFFEQGTQYQCLE
 NCGTVALTIIRGGDLTNTVFVDFRTEDGTANAGSDYEFTEGTVVFKPGDTQKEIRVGIIDDDIFEEDEN
 FLVHLSNVKVSSEASEDGILEANHVSTLACLGPSTATVTIFDDDHAGIFTFEEPVTHVSESIGIMEVKV
 LRTSGARGNVIVPYKTIIEGTARGGGEDFEDTCGELEFQNDIVKIIITIRIFDREEYEKESFSLVLEPK
 WIRRMKGGFITIDEYDDKQPLTSKEEEERRIAEMGRPILGEHTKLEVIIEESYEFKSTVDKLIKKNLA
 LVVGTNSWREQFIEAITVSAGEDDDDDCEGEEKLPSCFDYVMHFLTVFWKVLFAFVPPTYWNGWACFIV
 SILMIGLLTAFIGDLASHFGCTIGLKDSVTAVFVALGTSVPDTFASKVAATQDQYADASIGNVTGNSAV
 NVFLGIGVAWSIAAIYHAANGEQFKVSPGTLAFSVTLFTIFAFINVGVLVYRRRPEIGGELGGPRTAKLL
 TSCLFVLLWLLYIFFSSLEAYCHIKGF

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001112802

ORF Size: 2811 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 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_001112802.2](#)

RefSeq Size: 6032 bp

RefSeq ORF: 2814 bp

Locus ID: 6546

UniProt ID: [P32418](#)

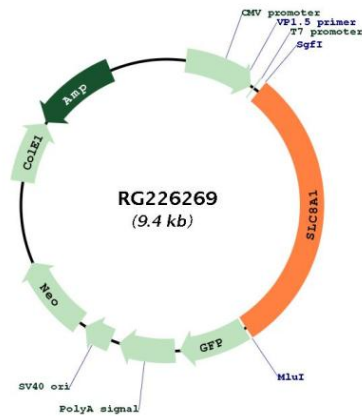
Cytogenetics: 2p22.1

Protein Families: Transmembrane

Protein Pathways: Arrhythmogenic right ventricular cardiomyopathy (ARVC), Calcium signaling pathway, Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

Gene Summary:

In cardiac myocytes, Ca(2+) concentrations alternate between high levels during contraction and low levels during relaxation. The increase in Ca(2+) concentration during contraction is primarily due to release of Ca(2+) from intracellular stores. However, some Ca(2+) also enters the cell through the sarcolemma (plasma membrane). During relaxation, Ca(2+) is sequestered within the intracellular stores. To prevent overloading of intracellular stores, the Ca(2+) that entered across the sarcolemma must be extruded from the cell. The Na(+)-Ca(2+) exchanger is the primary mechanism by which the Ca(2+) is extruded from the cell during relaxation. In the heart, the exchanger may play a key role in digitalis action. The exchanger is the dominant mechanism in returning the cardiac myocyte to its resting state following excitation.[supplied by OMIM, Apr 2004]

Product images:


Circular map for RG226269