

Product datasheet for RC226269L3

OriGene Technologies, Inc.

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NCX1 (SLC8A1) (NM_001112802) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: NCX1 (SLC8A1) (NM_001112802) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: NCX1

Synonyms: NCX1

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

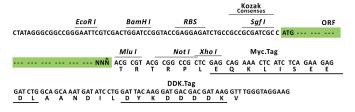
ORF Nucleotide The ORF insert of this clone is exactly the same as(RC226269).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



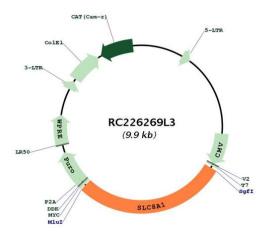


 $[\]ensuremath{^*}$ The last codon before the Stop codon of the ORF.





Plasmid Map:



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 customercare te

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: <u>NM 001112802.1</u>

 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)

MW: 104.5 kDa

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]