

## Product datasheet for RC226269L4

### 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:	mGFP
Symbol:	NCX1
Synonyms:	NCX1
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC226269).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:



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

ACCN:	NM_001112802
ORF Size:	2811 bp

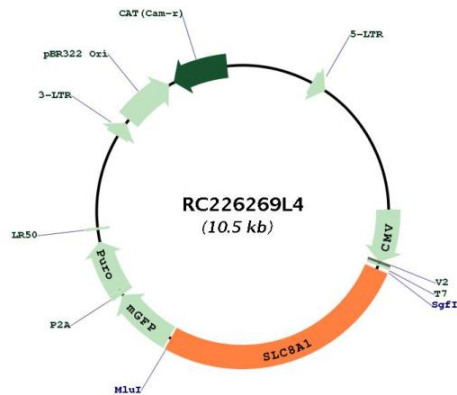


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<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability 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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	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>RefSeq:</b>	<a href="#">NM_001112802.1</a>
<b>RefSeq ORF:</b>	2814 bp
<b>Locus ID:</b>	6546
<b>UniProt ID:</b>	<a href="#">P32418</a>
<b>Cytogenetics:</b>	2p22.1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Calcium signaling pathway, Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)
<b>MW:</b>	104.5 kDa

**Gene Summary:**

In cardiac myocytes,  $\text{Ca}^{2+}$  concentrations alternate between high levels during contraction and low levels during relaxation. The increase in  $\text{Ca}^{2+}$  concentration during contraction is primarily due to release of  $\text{Ca}^{2+}$  from intracellular stores. However, some  $\text{Ca}^{2+}$  also enters the cell through the sarcolemma (plasma membrane). During relaxation,  $\text{Ca}^{2+}$  is sequestered within the intracellular stores. To prevent overloading of intracellular stores, the  $\text{Ca}^{2+}$  that entered across the sarcolemma must be extruded from the cell. The  $\text{Na}^{+}$ - $\text{Ca}^{2+}$  exchanger is the primary mechanism by which the  $\text{Ca}^{2+}$  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 RC226269L4