

Product datasheet for RC211873

NCX1 (SLC8A1) (NM_021097) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NCX1 (SLC8A1) (NM_021097) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NCX1
Synonyms:	NCX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Restriction Sites:	Sgfl-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:	NM_021097
ORF Size:	2919 bp



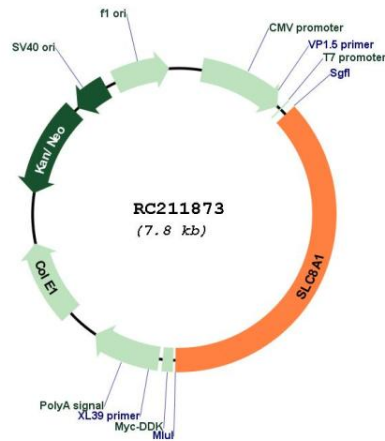
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OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), 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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_021097.4
RefSeq Size:	6053 bp
RefSeq ORF:	2922 bp
Locus ID:	6546
UniProt ID:	P32418
Cytogenetics:	2p22.1
Domains:	Calx-beta, Na_Ca_Ex
Protein Families:	Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Calcium signaling pathway, Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)
MW:	108.5 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]

Product images:



Circular map for RC211873