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Product datasheet for SC332206

NCX1 (SLC8A1) (NM_001252624) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NCX1 (SLC8A1) (NM_001252624) Human Untagged Clone
Tag:	Tag Free
Symbol:	NCX1
Synonyms:	NCX1
Vector:	pCMV6-Entry (PS100001)

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Fully Sequenced ORF:

>SC332206 representing NM_001252624.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGTACAACATGCGGCGATTAAGTCTTTCACCCACCTTTTCAATGGGATTTCATCTGTTAGTTACTGTG
AGTCTCTTATTTTCCCATGTGGACCATGTAATTGCTGAGACAGAAATGGAAGGAGAAGGAAATGAAACT
GGTGAATGTACTGGATCATATTACTGTAAGAAAGGGGTGATTTTGCCCATTTGGGAACCCCAAGACCCT
TCTTTTGGGGACAAAATTGCTAGAGCTACTGTGTATTTTGTGGCCATGGTCTACATGTTTCTTGGAGTC
TCTATCATAGCTGATCGGTTCATGTCCTCTATAGAAGTCATCACATCTCAAGAAAAAGAAATAACCATA
AAGAAACCCAATGGAGAGACCACCAAGACAACTGTGAGGATCTGGAATGAAACAGTTTCTAACCTGACC
TTGATGGCCCTGGGATCTTCTGCTCCTGAGATTCTCCTTTCAGTAATTGAAGTGTGTGGCCATAACTTC
ACTGCAGGAGACCTCGGTCCTAGCACCATCGTGGGAAGTGCTGCATTCAATATGTTCATCATTATTGCA
CTCTGTGTTTATGTGGTGCCTGACGGAGAGACAAGGAAGATTAAGCATTTGCGTGTCTTCTTTGTGACA
GCAGCCTGGAGCATCTTTGCCTACACCTGGCTTTACATTATTTTGTCTGTCATATCTCCTGGTGTTGTG
GAGGTCTGGGAAGGTTTGCTTACTTTCTTCTTCTTTCCCATCTGTGTTGTGTTCGCTTGGGTAGCGGAT
AGGAGACTTCTGTTTTACAAGTATGTCTACAAGAGGTATCGAGCTGGCAAGCAGAGGGGGATGATTATT
GAACATGAAGGAGACAGGCCATCTTCTAAGACTGAAATTGAAATGGACGGGAAAGTGGTCAATTCTCAT
GTTGAAAATTTCTTAGATGGTGCTCTGGTTCTGGAGGTGGATGAGAGGGACCAAGATGATGAAGAAGCT
AGGCGAGAAATGGCTAGGATTCTGAAGGAACTTAAGCAGAAGCATCCAGATAAAGAAATAGAGCAATTA
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ACTCGCCTCATGACTGGAGCTGGCAACATTTTAAAGAGGCATGCAGCTGACCAAGCAAGGAAGGCTGTC
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AACACTGTGTTTGTTGACTTCAGAACAGAGGATGGCACAGCAAATGCTGGGTCTGATTATGAATTTACT
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ACTATTTTTGATGATGACCACGCAGGCATTTTTACTTTTGAGGAACCTGTGACTCATGTGAGTGAGAGC
ATTGGCATCATGGAGGTGAAAGTATTGAGAACATCTGGAGCTCGAGGAAATGTTATCGTTCCATATAAA
ACCATCGAAGGGACTGCCAGAGGTGGAGGGGAGGATTTTGAGGACACTTGTGGAGAGCTCGAATTCCAG
AATGATGAAATTGTGAAGATCATTACCATTAGAATATTTGACCGTGAGGAATATGAGAAAGAGTGCAGT
TTCTCCCTTGTGCTTGAGGAACCAAAATGGATAAGAAGAGGAATGAAAGGTGGCTTCACAATAACAGGA
AAATACCTGTTTGGCCAACCTGTCTTCAGGAAGGTTCATGCTAGAGAACATCCGATTCTCTCTACTGTA
ATCACCATTGCAGACGAATATGATGACAAGCAGCCACTGACCAGCAAAGAGGAAGAGGAGAGGCGCATT
GCAGAAATGGGGCGCCCCATCCTGGGAGAGCACACCAAGTTGGAAGTGATCATTGAAGAATCCTATGAA
TTCAAGAGTACTGTGGACAAACTCATTAAGAAGACAAACCTGGCCCTTGTGGTTGGGACTAACAGCTGG
AGAGAACAGTTCATTGAAGCTATCACTGTCAGTGCTGGGGAAGATGATGACGACGATGAATGTGGGGAA
GAGAAGCTGCCCTCCTGTTTCGATTACGTGATGCACTTTCTGACTGTGTTCTGGAAGGTCCTGTTTGCC
TTCGTCCCCCCTACTGAATACTGGAATGGCTGGGCGTGTTTCATTGTCTCCATCCTCATGATTGGCCTA
CTGACAGCTTTCATTGGAGACCTGGCTTCCCACTTTGGCTGCACCATTGGCCTGAAAGATTCTGTGACT
GCAGTCGTGTTCGTCGCACTTGGAACATCAGTGCCAGACACATTTGCCAGCAAAGTGGCAGCCACCCAG
GACCAGTATGCAGACGCCTCCATAGGTAACGTCACGGGCAGCAACGCGGTGAATGTCTTCCTGGGAATC
GGTGTGGCCTGGTCCATCGCTGCCATCTACCACGCAGCCAATGGGGAACAGTTCAAAGTGTCCCCTGGC
ACACTAGCTTTCTCTGTCACTCTCTTCACCATTTTTGCTTTCATCAATGTGGGGGTGCTGCTGTATCGG
CGGAGGCCAGAAATCGGAGGTGAGCTGGGTGGGCCCCGGACTGCCAAGCTCCTCACATCCTGCCTCTTT
GTGCTCCTATGGCTCTTGTACATTTTCTTCTCCTCCCTGGAGGCCTACTGCCACATAAAAGGCTTCTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001252624

Insert Size: 2898 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_001252624.1
RefSeq Size:	6029 bp
RefSeq ORF:	2898 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:	107.9 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]
Transcript Variant: This variant (E) has multiple differences in the coding region but maintains the reading frame, compared to variant A. This variant encodes isoform E, which is 8 aa shorter than isoform A. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments. CCDS Note: This CCDS representation is supported by 3'-partial AF115505.1. The last four exons are inferred from other aligning transcripts, which do not indicate any alternative splicing in that region.