Na+/Ca2+exchanger (NCX) ELISA Kit for Donkey

PRODUCT OVERVIEW

Product Name	Na+/Ca2+Exchanger (NCX), ELISA Kit
Full Product Name	Donkey Na+/Ca2+Exchanger ELISA Kit
Product Gene Name	NCX elisa kit
Species Reactivity	Donkey
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	108,547 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (40339286..40739575, complement). Location: 2p22.1
OMIM	182305
3D Structure	ModBase 3D Structure for P32418
Related Product Information for NCX elisa kit	MBS077377 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Na+/Ca2+Exchanger (NCX) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing NCX. The ELISA analytical biochemical technique of the MBS077377 kit is based on NCX antibody-NCX antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect NCX antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, NCX. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of NCX elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NCX. It may not necessarily be applicable to this product.

NCBI GI #	1008973
NCBI GeneID	6546
NCBI Accession #	CAA62923.1
UniProt Primary Accession #	P32418
UniProt Secondary Accession #	O95849; Q4QQG6; Q587I6; Q59GN4; Q9UBL8; Q9UD55; Q9UDN1; Q9UDN2; Q9UKX6; A8K6N1; D6W595
UniProt Related Accession #	P32418
NCBI Official Full Name	Na+/Ca2+ exchanger
NCBI Official Synonym Full Names	solute carrier family 8 (sodium/calcium exchanger), member 1
NCBI Official Symbol	SLC8A1
NCBI Official Synonym Symbols	NCX1
UniProt Protein Name	Sodium/calcium exchanger 1
UniProt Synonym Protein Names	Na(+)/Ca(2+)-exchange protein 1
UniProt Gene Name	SLC8A1

UniProt Synonym Gene Names	CNC; NCX1
UniProt Entry Name	NAC1_HUMAN
NCBI Protein Information	sodium/calcium exchanger 1; Na+/Ca++ exchanger; Na+/Ca2+ exchanger; Na(+)/Ca(2+)-exchange protein 1
NCBI Summary for NCX	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]
UniProt Comments for NCX	NCX1: Rapidly transports Ca(2+) during excitation-contraction coupling. Ca(2+) is extruded from the cell during relaxation so as to prevent overloading of intracellular stores. Belongs to the sodium/potassium/calcium exchanger family. SLC8 subfamily. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Transporter, SLC family; Membrane protein, multi-pass; Transporter; Motility/polarity/chemotaxis; Membrane protein, integral Chromosomal Location of Human Ortholog: 2p22.1 Cellular Component: basolateral plasma membrane; integral to plasma membrane; T-tubule; plasma membrane; Z disc; sarcolemma Molecular Function: calmodulin binding; metal ion binding; cytoskeletal protein binding; ankyrin binding; calcium:sodium antiporter activity Biological Process: heart morphogenesis; cellular sodium ion homeostasis; embryonic placenta development; regulation of heart rate; vascular smooth muscle contraction; post-embryonic development; calcium ion homeostasis; cardiac muscle cell development; muscle contraction; reduction of cytosolic calcium ion concentration; embryonic heart tube development; ion transport; muscle fiber development; blood coagulation; transmembrane transport; regulation of the force of heart contraction; cardiac muscle contraction
Research Articles on NCX	**1.** these results demonstrate that REST, by regulating NCX1 expression, may represent a potential druggable target for the treatment of brain ischemia
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