10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NCX1 Rabbit pAb

Catalog # AP99913

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P32418
Other Accession	P32418
Reactivity	Rat, Human
Predicted	Pig, Mouse, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	108547
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NCX1
Epitope Specificity	801-900/971
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the sodium/potassium/calcium exchanger family. SLC8 subfamily. Contains 2 Calx-beta domains.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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].

Additional Information

Gene ID	6546
Other Names	NCX1; D930008O12Rik; NACA; Ncx; NAC1_CANLF; SLC8A1; Na(+)/Ca(2+)-exchange protein 1; Solute carrier family 8 member 1; NAC1_CAVPO; NAC1_HUMAN; CNC; NAC1_MOUSE; NAC1_RAT; solute carrier family 8 member A1; solute carrier family 8 (sodium/calcium exchanger), member 1; Na+/Ca++ exchanger
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=0.2 ug/test

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SLC8A1
Function	Mediates the exchange of one Ca(2+) ion against three to four Na(+) ions across the cell membrane, and thereby contributes to the regulation of cytoplasmic Ca(2+) levels and Ca(2+)-dependent cellular processes (PubMed:11241183, PubMed:1374913, PubMed:1476165). Contributes to Ca(2+) transport during excitation-contraction coupling in muscle (PubMed:11241183, PubMed:1374913, PubMed:1476165). In a first phase, voltage-gated channels mediate the rapid increase of cytoplasmic Ca(2+) levels due to release of Ca(2+) stores from the endoplasmic reticulum (PubMed:11241183, PubMed:1374913, PubMed:1476165). SLC8A1 mediates the export of Ca(2+) from the cell during the next phase, so that cytoplasmic Ca(2+) levels rapidly return to baseline (PubMed:11241183, PubMed:1374913, PubMed:1476165). Required for normal embryonic heart development and the onset of heart contractions (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Detected primarily in heart and at lower levels in brain (PubMed:1374913). Expressed in cardiac sarcolemma, brain, kidney, liver, pancreas, skeletal muscle, placenta and lung (PubMed:1476165)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.