

NCX1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51525

Product Information

Application	WB
Primary Accession	P32418
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	108547

Additional Information

Gene ID	6546
Other Names	Sodium/calcium exchanger 1, Na(+)/Ca(2+)-exchange protein 1, Solute carrier family 8 member 1, SLC8A1, CNC, NCX1
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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

Background

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.

References

- Komuro I.,et al.Proc. Natl. Acad. Sci. U.S.A. 89:4769-4773(1992).
Van Eylen F.,et al.J. Endocrinol. 168:517-526(2001).
Mangini N.J.,et al.Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Hillier L.W.,et al.Nature 434:724-731(2005).

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