

Anti-NCX1 Rabbit Monoclonal Antibody
Catalog # ABO15300**Specification**

Anti-NCX1 Rabbit Monoclonal Antibody - Product Information

Application	WB
Primary Accession	P32418
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-NCX1 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse, Rat.

Anti-NCX1 Rabbit Monoclonal Antibody - Additional Information

Gene ID 6546

Other Names

Sodium/calcium exchanger 1, Na(+)/Ca(2+)-exchange protein 1, Solute carrier family 8 member 1, SLC8A1

Calculated MW

300 kDa KDa

Application Details

WB 1:500-1:2000

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human NCX1

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-NCX1 Rabbit Monoclonal Antibody - 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](http://www.uniprot.org/citations/11241183), PubMed:[1374913](http://www.uniprot.org/citations/1374913), PubMed:[1476165](http://www.uniprot.org/citations/1476165)). Contributes to Ca^{2+} transport during excitation-contraction coupling in muscle (PubMed:[11241183](http://www.uniprot.org/citations/11241183), PubMed:[1374913](http://www.uniprot.org/citations/1374913), PubMed:[1476165](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11241183), PubMed:[1374913](http://www.uniprot.org/citations/1374913), PubMed:[1476165](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11241183), PubMed:[1374913](http://www.uniprot.org/citations/1374913), PubMed:[1476165](http://www.uniprot.org/citations/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

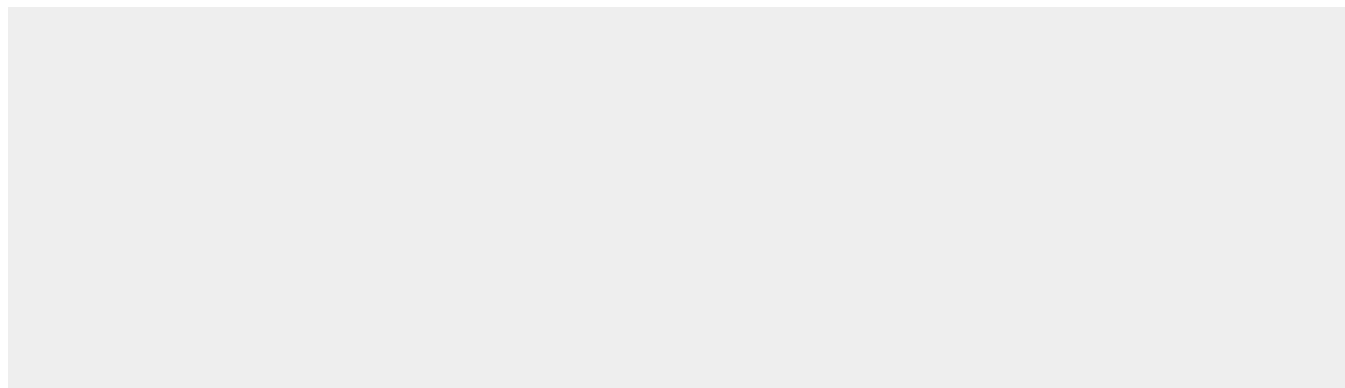
Detected primarily in heart and at lower levels in brain (PubMed:1374913). Expressed in cardiac sarcolemma, brain, kidney, liver, pancreas, skeletal muscle, placenta and lung (PubMed:1476165)

Anti-NCX1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-NCX1 Rabbit Monoclonal Antibody - Images



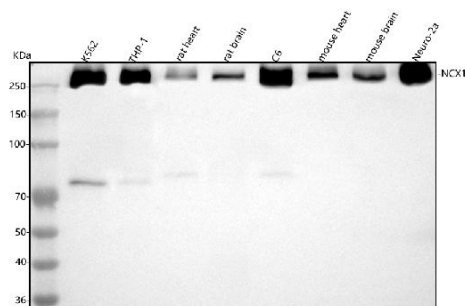


Figure 1. Western blot analysis of NCX1 using anti-NCX1 antibody (M03876).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human K562 whole cell lysates,

Lane 2: human THP-1 whole cell lysates,

Lane 3: rat heart tissue lysates,

Lane 4: rat brain tissue lysates,

Lane 5: rat C6 whole cell lysates,

Lane 6: mouse heart tissue lysates,

Lane 7: mouse brain tissue lysates,

Lane 8: mouse Neuro-2a whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NCX1 antigen affinity purified monoclonal antibody (Catalog # M03876) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NCX1 at approximately 300 kDa. The expected band size for NCX1 is at 109 kDa.