Anti-NCX1 Antibody [PSH20-37]

HA724148

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-Fr, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 109 kDa
Clone number:	PSH20-37

Description: The sodium-calcium exchanger (often denoted Na+/Ca2+ exchanger, exchange protein, or NCX) is an antiporter membrane protein that removes calcium from cells. It uses the energy that is stored in the electrochemical gradient of sodium (Na+) by allowing Na+ to flow down its gradient across the plasma membrane in exchange for the countertransport of calcium ions (Ca2+). A single calcium ion is exported for the import of three sodium ions. The exchanger exists in many different cell types and animal species. The NCX is considered one of the most important cellular mechanisms for removing Ca2+. The exchanger is usually found in the plasma membranes and the mitochondria and endoplasmic reticulum of excitable cells.

Immunogen: Recombinant protein within human NCX1 aa 253-800.

Positive control: Mouse heart tissue lysate, Mouse kidney tissue lysate, Rat heart tissue lysate, Rat brain tissue lysate, Rat kidney tissue lysate, human brain tissue, human heart tissue, mouse brain tissue, mouse heart tissue, rat brain tissue, rat heart tissue.

Subcellular location: Cell membrane.

Database links: SwissProt: P32418 Human | P70414 Mouse | Q01728 Rat

Recommended Dilutions:

WB	1:5,000
IHC-Fr	1:500
IHC-P	1:200-1:1,000
IF-Tissue	1:200

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

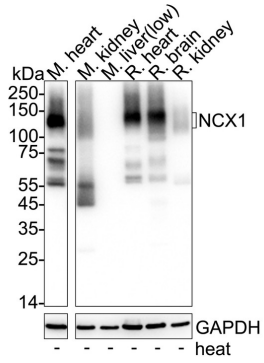

Fig1: Western blot analysis of NCX1 on different lysates with Rabbit anti-NCX1 antibody (HA724148) at 1/5,000 dilution.

Lane 1: Mouse heart tissue lysate
Lane 2: Mouse kidney tissue lysate
Lane 3: Mouse liver tissue lysate (low expression)
Lane 4: Rat heart tissue lysate
Lane 5: Rat brain tissue lysate
Lane 6: Rat kidney tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 109 kDa
Observed band size: 109 kDa

Exposure time: 8 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA724148) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

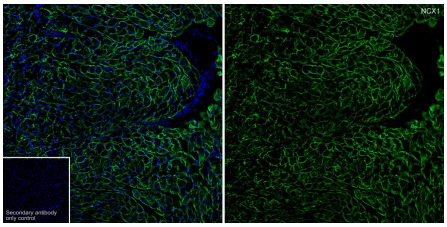

Fig2: Application: IHC-Fr

Species: Mouse

Site: heart

Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Not required

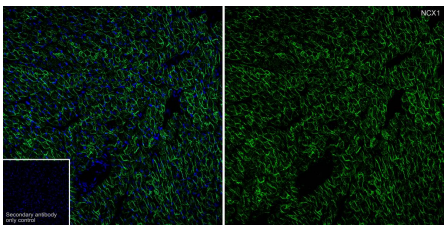

Fig3: Application: IHC-Fr

Species: Rat

Site: heart

Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Not required

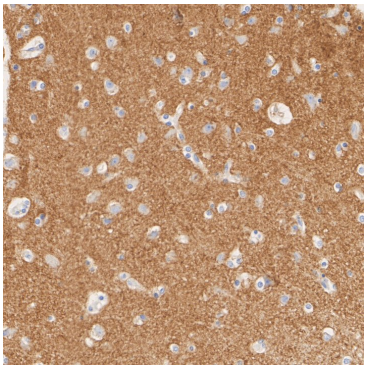

Fig4: Immunohistochemical analysis of paraffin-embedded human brain tissue with Rabbit anti-NCX1 antibody (HA724148) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724148) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

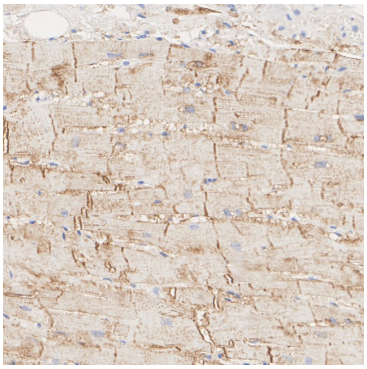

Fig5: Immunohistochemical analysis of paraffin-embedded human heart tissue with Rabbit anti-NCX1 antibody (HA724148) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724148) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

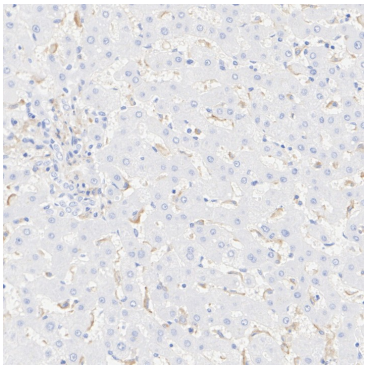

Fig6: Immunohistochemical analysis of paraffin-embedded human liver tissue (hepatocytes negative) with Rabbit anti-NCX1 antibody (HA724148) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724148) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

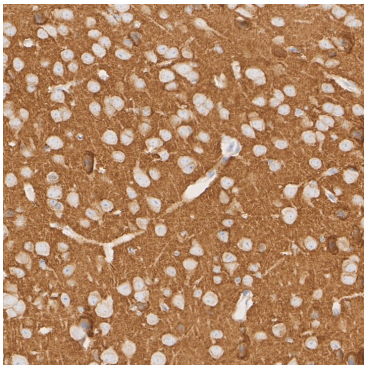

Fig7: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-NCX1 antibody (HA724148) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724148) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

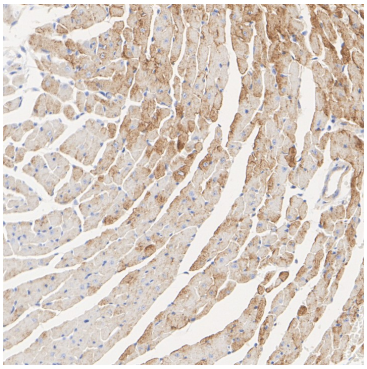

Fig8: Immunohistochemical analysis of paraffin-embedded mouse heart tissue with Rabbit anti-NCX1 antibody (HA724148) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724148) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

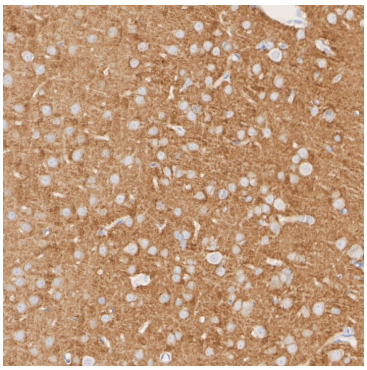

Fig9: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-NCX1 antibody (HA724148) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724148) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

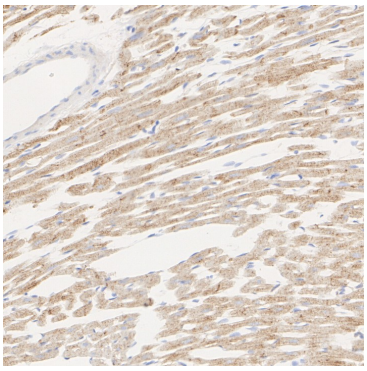

Fig10: Immunohistochemical analysis of paraffin-embedded rat heart tissue with Rabbit anti-NCX1 antibody (HA724148) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724148) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Wan H et al. NCX1 coupled with TRPC1 to promote gastric cancer via Ca(2+)/AKT/beta-catenin pathway. Oncogene. 2022 Aug
2. Rubino V et al. Modulation of NCX1 expression in monocytes associates with multiple sclerosis progression. Heliyon. 2025 Jan