**BACKGROUND**

Sodium/calcium exchanger proteins are integral membrane proteins primarily seen in cardiac cells. In cardiac myocytes, the concentration of Ca\(^{2+}\) alternates between low levels during relaxation and high levels during contraction. NCX3 (Na\(^+/\)Ca\(^{2+}\) exchange protein 3), also known as SLC8A3 (solute carrier family 8 (sodium/calcium exchanger), member 3), is a 927 amino acid multi-pass membrane protein belonging to the sodium/potassium/calcium exchanger family. Expressed as three alternatively spliced isoforms, NCX3 rapidly transports Ca\(^{2+}\) during excitation-contraction coupling. Containing two Ca\(\beta\) domains, NCX3 is expressed in brain, skeletal muscle and retina. As a major functional sodium-calcium exchanger in osteoblasts, NCX3 is involved in the translocation of Ca\(^{2+}\) out of oseoblasts into calcifying bone matrix.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SLC8A3 (human) mapping to 14q24.2; Slc8a3 (mouse) mapping to 12 D1.

**SOURCE**

NCX3 (H-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping within an N-terminal extracellular domain of NCX3 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

NCX3 (H-60) is recommended for detection of NCX3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NCX3 (H-60) is also recommended for detection of NCX3 in additional species, including equine, bovine, porcine and canine.

Suitable for use as control antibody for NCX3 siRNA (h): sc-44910, NCX3 siRNA (m): sc-44911, NCX3 shRNA Plasmid (h): sc-44910-SH, NCX3 shRNA Plasmid (m): sc-44911-SH, NCX3 shRNA (h) Lentiviral Particles: sc-44910-V and NCX3 shRNA (m) Lentiviral Particles: sc-44911-V.

Molecular Weight of NCX3 precursor: 110-130 kDa.

Molecular Weight of degraded NCX3: 66 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, PC-12 cell lysate: sc-2250 or mouse skeletal muscle extract: sc-364250.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.