

NHEDC2 (P-12): sc-161940

BACKGROUND

Na⁺/H⁺ exchangers (NHEs) catalyze the transport of Na⁺ in exchange for H⁺ across membranes in organisms and are required for numerous physiological processes. NHEDC2 (Na⁺/H⁺ exchanger-like domain-containing protein 2), also known as NHA2, is a 537 amino acid mitochondrial protein. NHEDC2 is involved in organelle volume homeostasis by catalyzing the exchange of protons for Na⁺ and Li⁺ across the inner mitochondrial membrane. Found in red blood cells, NHEDC2 is required for bone resorption activity and osteoclast differentiation. As a multi-pass membrane protein, NHEDC2 is expressed as two isoforms produced by alternative splicing events.

REFERENCES

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5. Xiang, M., et al. 2007. A human Na⁺/H⁺ antiporter sharing evolutionary origins with bacterial NhaA may be a candidate gene for essential hypertension. *Proc. Natl. Acad. Sci. USA* 104: 18677-18681.
6. Battagliano, R.A., et al. 2008. NHA-oc/NHA2: a mitochondrial cation-proton antiporter selectively expressed in osteoclasts. *Bone* 42: 180-192.
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CHROMOSOMAL LOCATION

Genetic locus: *Nhedc2* (mouse) mapping to 3 G3.

SOURCE

NHEDC2 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NHEDC2 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-161940 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

NHEDC2 (P-12) is recommended for detection of NHEDC2 of mouse and rat 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); non cross-reactive with NHEDC1.

Suitable for use as control antibody for NHEDC2 siRNA (m): sc-149960, NHEDC2 shRNA Plasmid (m): sc-149960-SH and NHEDC2 shRNA (m) Lentiviral Particles: sc-149960-V.

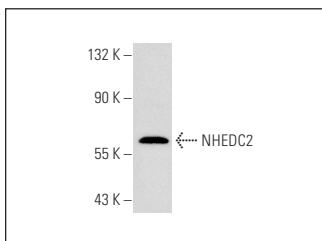
Molecular Weight of NHEDC2: 57 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NHEDC2 (P-12): sc-161940. Western blot analysis of NHEDC2 expression in KNRK whole cell lysate.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.