SANTA CRUZ BIOTECHNOLOGY, INC.

NHERF-2 (C-14): sc-21117

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Na^+/H^+ exchange protein (NHE3) functions in transepithelial Na^+ absorption and is primarily expressed in the intestinal and renal brush border membrane. NHE3 regulatory factor 1 (NHERF-1) interacts with NHE3 through two PDZ (for PSD-95, Discs-large and ZO-1 homology) domains, which are protein-protein interaction modules that associate with specific carboxy-terminal motifs on target proteins. Also known as EBP50, NHERF-1 facilitates cAMP inhibition of NHE3 to decrease Na^+ adsorption. NHERF-1 functions as a scaffold for an essential multiprotein complex of Ezrin and NHE3 for cAMP-mediated phosphorylation and consequent inhibition of NHE3. The amino-terminal PDZ domain regulates the dimerization of NHERF-1 *in vivo*. G protein-coupled receptor kinase 6A phosphorylates NHERF-1 at Ser 289 via a PDZ domain-mediated interaction. NHERF-2, also known as E3KARP, which is ubiquitously expressed, also functions in NHE2 regulation.

CHROMOSOMAL LOCATION

Genetic locus: SLC9A3R2 (human) mapping to 16p13.3; Slc9a3r2 (mouse) mapping to 17 A3.3.

SOURCE

NHERF-2 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NHERF-2 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.

Blocking peptide available for competition studies, sc-21117 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

NHERF-2 (C-14) is recommended for detection of NHERF-2 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).

NHERF-2 (C-14) is also recommended for detection of NHERF-2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for NHERF-2 siRNA (h): sc-42522, NHERF-2 siRNA (m): sc-42523, NHERF-2 shRNA Plasmid (h): sc-42522-SH, NHERF-2 shRNA Plasmid (m): sc-42523-SH, NHERF-2 shRNA (h) Lentiviral Particles: sc-42522-V and NHERF-2 shRNA (m) Lentiviral Particles: sc-42523-V.

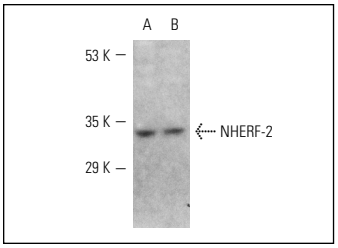
Molecular Weight of NHERF-2: 34 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211 or NIH/3T3 whole cell lysate: sc-2210.

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



NHERF-2 (C-14): sc-21117. Western blot analysis of NHERF-2 expression in RAW 264.7 (**A**) and NIH/3T3 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lauffer, B.E., et al. 2010. SNX27 mediates PDZ-directed sorting from endosomes to the plasma membrane. J. Cell. Biol. 190: 565-574.

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.