

NHERF-1 (H-100): sc-134485

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, is an ubiquitously expressed protein which also functions in NHE2 regulation.

CHROMOSOMAL LOCATION

Genetic locus: SLC9A3R1 (human) mapping to 17q25.1; Slc9a3r1 (mouse) mapping to 11 E2.

SOURCE

NHERF-1 (H-100) is a rabbit polyclonal antibody raised against amino acids 241-340 mapping near the C-terminus of NHERF-1 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.

STORAGE

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

APPLICATIONS

NHERF-1 (H-100) is recommended for detection of NHERF-1 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), immunohistochemistry (including paraffin-embedded sections) (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-1 (H-100) is also recommended for detection of NHERF-1 in additional species, including equine.

Suitable for use as control antibody for NHERF-1 siRNA (h): sc-63330, NHERF-1 siRNA (m): sc-63331, NHERF-1 siRNA (r): sc-156113, NHERF-1 shRNA Plasmid (h): sc-63330-SH, NHERF-1 shRNA Plasmid (m): sc-63331-SH, NHERF-1 shRNA Plasmid (r): sc-156113-SH, NHERF-1 shRNA (h) Lentiviral Particles: sc-63330-V, NHERF-1 shRNA (m) Lentiviral Particles: sc-63331-V and NHERF-1 shRNA (r) Lentiviral Particles: sc-156113-V.

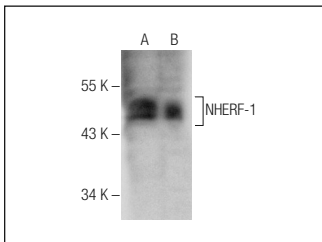
Molecular Weight of NHERF-1: 50 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, Caki-1 cell lysate: sc-2224 or SK-N-MC cell lysate: sc-2237.

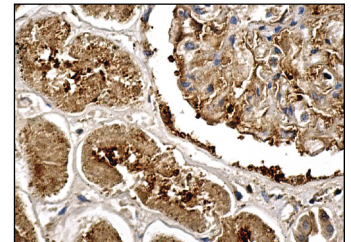
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



NHERF-1 (H-100): sc-134485. Western blot analysis of NHERF-1 expression in IMR-32 (A) and Caki-1 (B) whole cell lysates.



NHERF-1 (H-100): sc-134485. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubules.

SELECT PRODUCT CITATIONS

1. Avena, M., et al. 2011. Evidence for alteration of calpain/calpastatin system in PBMC of cystic fibrosis patients. *Biochim. Biophys. Acta* 1812: 1649-1657.
2. Billing, A.M., et al. 2012. Proteomic profiling of rapid non-genomic and concomitant genomic effects of acute restraint stress on rat thymocytes. *J. Proteomics* 75: 2064-2079.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
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Try **NHERF-1 (A-7): sc-271552** or **NHERF-1 (EBP-10): sc-51684**, our highly recommended monoclonal alternatives to NHERF-1 (H-100).