**BACKGROUND**

Na+/H+ exchangers-1-6 (Na+/H+ antiporters, NHE-1-6) are integral membrane proteins that are expressed in most mammalian tissues, where they regulate intracellular pH and cell volume. NHEs mediate the secondary active extrusion of hydrogen (H+) ions out of cells in exchange for extracellular sodium (Na+). Excluding NHE-1, which is ubiquitously expressed, the NHE isoforms 2-6 have distinct tissue- and cell type-dependent expression and inhibitory characteristics by amiloride analogs. Human NHE-1 protein, known also as solute carrier family 9 isoform-1 (SLC9A1) is a ten transmembrane domain-spanning receptor that contains an N-terminal amphiphatic domain and two putative N-glycosylation sites.

**CHROMOSOMAL LOCATION**

Genetic locus: SLC9A1 (human) mapping to 1p36.11; Slc9a1 (mouse) mapping to 4D2.3.

**SOURCE**

NHE-1 (54) is a mouse monoclonal antibody raised against amino acids 682-801 of NHE-1 of rat origin.

**PRODUCT**

Each vial contains 50 µg IgG1 in 0.5 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136239 P, (100 µg peptide in 0.5 ml PBS containing <0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

NHE-1 (54) is recommended for detection of NHE-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

NHE-1 (54) is also recommended for detection of NHE-1 in additional species, including canine.

Suitable for use as control antibody for NHE-1 siRNA (h): sc-42650, NHE-1 siRNA (m): sc-42651, NHE-1 shRNA Plasmid (h): sc-42650-SH, NHE-1 shRNA Plasmid (m): sc-42651-SH, NHE-1 shRNA (h) Lentiviral Particles: sc-42650-V and NHE-1 shRNA (m) Lentiviral Particles: sc-42651-V.

Molecular Weight of NHE-1 precursor: 90 kDa.

Molecular Weight of glycosylated NHE-1: 110-130 kDa.

Molecular Weight of NHE-1 dimer: 210 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136.

**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. Not for resale.

**DATA**


**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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