**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, NHE isoforms 2-6 have distinct tissue- and cell type-dependent expression, and inhibitory characteristics by amiloride analogs. Mammalian NHE-3 protein, also known as solute carrier family 9 isoform-3 or SLC9A3, is a major absorptive NHE in kidney and intestine that influences ion homeostasis by mediating sodium absorption.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SLC9A3 (human) mapping to 5p15.33; Slc9a3 (mouse) mapping to 13 C1.

**SOURCE**

p-NHE-3 (14D5) is a mouse monoclonal antibody raised against a serine-phosphorylated synthetic peptide corresponding to amino acids 542-563 of NHE-3 of rat origin.

**PRODUCT**

Each vial contains 200 µg IgG₂κ kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

p-NHE-3 (14D5) is available conjugated to agarose (sc-53962 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53962 HRP), 200 µg/ml, for WB, IHC, and ELISA; to either phycoerythrin (sc-53962 PE), fluorescein (sc-53962 FITC), Alexa Fluor® 488 (sc-53962 AF488), Alexa Fluor® 546 (sc-53962 AF546), Alexa Fluor® 594 (sc-53962 AF594) or Alexa Fluor® 647 (sc-53962 AF647), 200 µg/ml, for WB (RGB), IF, IHC, and FCM; and to either Alexa Fluor® 680 (sc-53962 AF680) or Alexa Fluor® 790 (sc-53962 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

p-NHE-3 (14D5) is recommended for detection of NHE-3 (phosphoserine 552) 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for NHE-3 siRNA (h): sc-36059, NHE-3 siRNA (m): sc-36060, NHE-3 shRNA Plasmid (h): sc-36059-SH, NHE-3 shRNA Plasmid (m): sc-36060-SH, NHE-3 shRNA (h) Lentiviral Particles: sc-36059-V and NHE-3 shRNA (m) Lentiviral Particles: sc-36060-V.

Molecular Weight of glycosylated p-NHE-3 isoforms: 93/80-100 kDa.

**STORAGE**

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

**DATA**

Western blot analysis of NHE-3 phosphorylation in non-transfected: sc-110760 (A), untreated mouse NHE-3 transfected: sc-179002 (B) and lambda protein phosphatase (sc-09312A) treated mouse NHE-3 transfected: sc-179002 (C-F) 293 whole cell lysates. Antibodies tested include p-NHE-3 (14D5): sc-53962 (A.B.C) and NHE-3 (E4) : sc-130689 (D.E.F).

Select Product Citations


**RESEARCH USE**

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA