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RABBIT NA+/H+ EXCHANGER-1 [NHE1] POLYCLONAL ANTIBODY

CATALOG NUMBER:	AB3081	**QUANTITY:**	50 µg
LOT NUMBER:		**CONCENTRATION:**	1.0 mg/mL

SPECIFICITY: Na+/H+ Exchanger 1 (NHE1). The immunogen peptide shows no significant homology with other NHE isoforms (NHE2-5).

BACKGROUND: Na+/H+ exchangers (NHE) of mammalian cells are plasma membrane intrinsic proteins mediating exchange of Na+ and H+ ions in various tissues. The NHE catalyzes the electoneuronal transport of extracellular Na+ for intracellular H+. They play a major role in regulation of intracellular pH (pHi) addition to trans-cellular absorption of Na+, cell volume regulation and possibly in cell proliferation. These primary functions of the Na+/H+ exchanger have been related to many pathophysiological states, include hypertension, organ growth and hypertrophy, regression of cancer and renal intestinal disorders. Five isoforms (NHE1-5) have been cloned so far. They are all similar in their primary structure and predicted to have 10-12 transmembrane domains. The COOH-terminals of NHE1, NHE2 and NHE3 are intracellular.

NHE1 is “House Keeper” and is expressed ubiquitously in all tissues. It is implicated in pH homeostasis, volume regulation, and probably cell proliferation. It is expressed on basolateral surface of several epithelia (1).

IMMUNOGEN: A 22 amino acid peptide within the cytoplasmic, C-terminal domain of rat NHE1, coupled to KLH.

APPLICATIONS:
Western blot: 1-10 µg/mL using Chemiluminescence technique.
Immunohistochemistry: Not tested. Suggested to be used at 2-20 µg/mL on formaldehyde fixed tissue.
ELISA: 1:100,000 using 50-100 ng control peptide per well.
Optimal working dilutions must be determined by end user.

SPECIES REACTIVITY: Rat. Due to sequence homology the antibody is expected to react with mouse, human, bovine, and possibly hamster NHE1. Actual cross reactivity with other species has not yet been determined.

FORMAT: Affinity purified immunoglobulin

PRESENTATION: Liquid in PBS with 0.1% BSA and 0.05% sodium azide.

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STORAGE/HANDLING: Maintain frozen at -20°C in undiluted aliquots for up to 6 months after date of receipt. Avoid repeated freeze/thaw cycles.

Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µL or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

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