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RABBIT NA+/H+ EXCHANGER-2 [NHE2] POLYCLONAL ANTIBODY

CATALOG NUMBER: AB3083

LOT NUMBER:

QUANTITY: 50 µg

CONCENTRATION: 1.0 mg/mL

SPECIFICITY: 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.

NHE2 has been implicated in volume regulation in renal inner medullary collecting duct cells. Its mRNA is found in kidney medulla, cortex, colon, jejunum, ileum, human jejunum, ileum, duodenum, stomach and adrenal glands (1).

IMMUNOGEN: A 20 amino acid peptide within the cytoplasmic, c-terminal domain of the rat NHE2 (1), coupled to KLH.

APPLICATIONS: Western blot: 1-10 µg/mL using Chemiluminescence technique. The molecular weight of NHE2 is approximately 90 kDa (2).
Immunohistochemistry: Not tested. We recommend using the affinity purified antibody at 2-20 µg/mL.
ELISA: 1:100,000 using 50-100 ng control peptide (AG784)/well.
Optimal working dilutions must be determined by end user.

SPECIES REACTIVITIES: Rat. Other species have not been tested. The antibody is expected to work on human (100%) and mouse (100%) and possibly rabbit (85%) due to sequence homology.

FORMAT: Affinity purified immunoglobulin.

PRESENTATION: Liquid in PBS with 0.1% BSA .

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

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RELATED REFERENCES:

1. Wang Z et al (1993) *J Biol Chem*. **268**:11925; Collins JF et al (1990) *PNAS* **90**:9398; Ghishan FK et al (1995) *Genomics* **30**:25; Chris Yun CH et al (1995) *Am J Physiol.* **269**:G1-G11 (review); Josette N and Pouyssegur J (1995) *Am J Physiol.* **268**:C283-C296 (review).

2. Brookstein C et al (1994) *J. Biol Chem*. **269**:29704.

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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