



RABBIT ANTI-NA⁺/H⁺ EXCHANGER-3 [NHE3] AFFINITY PURIFIED POLYCLONAL ANTIBODY

CATALOG NUMBER: AB3085

LOT NUMBER:

QUANTITY: 50 µg

CONCENTRATION: 1 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 electroneutral 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 (NHE3-5) 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.

NHE3 is involved in trans-epithelial Na⁺ absorption. The NHE3 mRNA is found in kidney cortex, medulla, jejunum, ileum, colon and stomach (1).

IMMUNOGEN: A 22 amino acid peptide within the cytoplasmic, C-terminal domain of the rat NHE3 (1), coupled to KLH.

Control Peptide is available for purchase. Please inquire about cat# AG779

APPLICATIONS: Western blot: 1-10 µg/mL using Chemiluminescence technique. A band of approximately 90 kD has been detected in brush border membrane (2).
Immunohistochemistry: Not tested. We recommend using the affinity purified antibody at 2-20 µg/mL in formaldehyde fixed tissue.
ELISA: 1:100,000 using 50-100 ng control peptide (AG779)/well.
Optimal working dilutions must be determined by end user.

SPECIES REACTIVITIES: Rat. The immunogen sequence shows 90% homology with mouse and 76% homology with human NHE3. Cross reactivity with other species has not been determined.

FORMAT: Affinity purified immunoglobulin.

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

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

RELATED REFERENCES:

1. Brant SR et al (1995) *Am. J. Physiol.* **269**:C198-C206; Orlowski J et al (1992) *J Biol Chem* **267**:9331; 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. Yoshioka et al (1997) *J Biochem.* (Tokyo) **122**:641-646.



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 μ L 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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PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION

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