

**Datasheet for 600-401-DA7****Nhe-1 Antibody****Overview**

|                      |  |
|----------------------|--|
| <b>Description:</b>  | Anti-Nhe-1 (RABBIT) Antibody - 600-401-DA7 |
| <b>Item No.:</b>     | 600-401-DA7                                |
| <b>Size:</b>         | 100 µg                                     |
| <b>Applications:</b> | ELISA, IF, IHC, WB                         |
| <b>Reactivity:</b>   | Human, Mouse, Rat                          |
| <b>Host Species:</b> | Rabbit                                     |

**Product Details**

|                      |  |
|----------------------|--|
| <b>Background:</b>   | The Na <sup>+</sup> /H <sup>+</sup> antiporter (Nhe-1) is a ubiquitous membrane-bound enzyme involved in pH regulation of vertebrate cells and is specifically inhibited by the diuretic drug amiloride and activated by a variety of signals including growth factors, mitogens, neurotransmitters, and tumor promoters. Nhe-1 acts as an anchor for actin filaments to control the integrity of the cortical cytoskeleton. This occurs through a previously unrecognized structural link between Nhe-1 and the actin-binding proteins ezrin, radixin, and moesin, collectively referred to as ERM proteins. A structural role for Nhe-1 has been proposed in regulating the cortical cytoskeleton that is independent of its function as an ion exchanger. It is also thought that Nhe-1 play a role in hypertension. At least two isoforms of Nhe-1 are known to exist. |
| <b>Synonyms:</b>     | Nhe-1 Antibody, APNH, NHE1, NHE-1, APNH1, APNH   |
| <b>Host Species:</b> | Rabbit   |
| <b>Clonality:</b>    | Polyclonal   |
| <b>Format:</b>       | IgG  |

**Target Details**

|                        |  |
|------------------------|--|
| <b>Gene Name:</b>      | SLC9A1   |
| <b>Reactivity:</b>     | Human, Mouse, Rat  |
| <b>Immunogen Type:</b> | Conjugated Peptide   |
| <b>Immunogen:</b>      | Anti-Nhe-1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 20 amino acid synthetic peptide near the C-terminus of the human Nhe-1. |

**Purity/Specificity:** Anti-Nhe-1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with Nhe-1 from other sources has not been determined.

**Relevant Links:**

- [UniProtKB - P19634](#)
- [GeneID - 6548](#)
- [NCBI - P19634](#)

## Application Details

**Tested Applications:** ELISA, IF, IHC, WB

**Application Note:** Anti-Nhe-1 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 91 kDa in Western Blots of specific cell lysates and tissues.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

**ELISA:** 1:10,000 - 1:20,000

**IF:** 20 µg/mL

**IHC:** 2.5 µg/mL

**WB:** 1-2 µg/mL

## Formulation

**Physical State:** Liquid (sterile filtered)

**Concentration:** 1 mg/mL by UV absorbance at 280 nm

**Buffer:** 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2

**Preservative:** 0.02% (w/v) Sodium Azide

**Stabilizer:** None

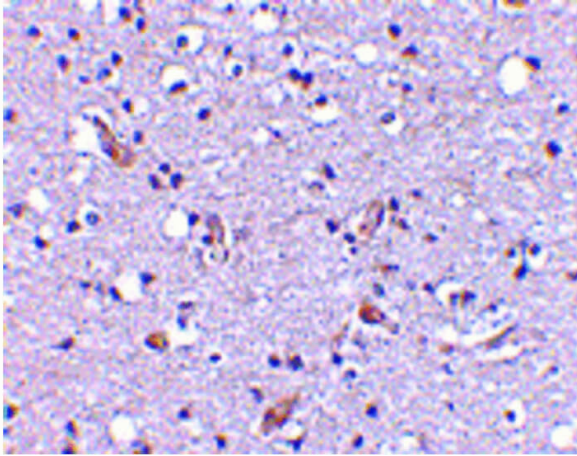
## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

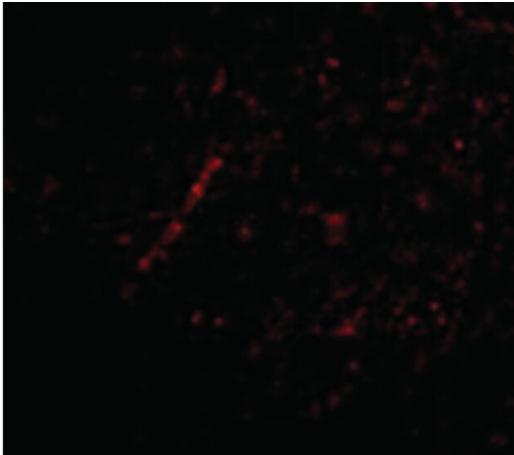
**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



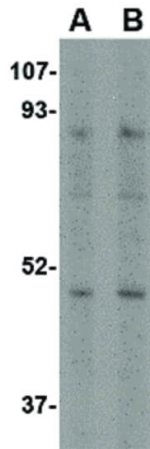
### Immunohistochemistry

Immunohistochemistry of Nhe-1 antibody. Tissue: Human brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Nhe-1 antibody at 2.5  $\mu\text{g}/\text{mL}$  for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Nhe-1 is nuclear and occasionally cytoplasmic. Staining: Nhe-1 as precipitated red signal with hematoxylin purple nuclear counterstain.



### Immunofluorescence Microscopy

Immunofluorescence Microscopy of Nhe-1 antibody. Tissue: Human brain tissue. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Nhe-1 antibody at 20  $\mu\text{g}/\text{mL}$  for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: Nhe-1 as red fluorescent signal.

**Western Blot**

Western Blot of Nhe-1 antibody. Lane A: Rat kidney tissue at 1 µg/mL. Lane B: Rat kidney tissue at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 90.7 & 61 kDa, ~90 & ~48 kDa for Nhe-1. Other band(s): Nhe-1 splice variants and isoforms.

**Disclaimer**

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.