

Datasheet for 600-401-DA8**Nhe-1 Antibody****Overview**

Description:	Anti-Nhe-1 (RABBIT) Antibody - 600-401-DA8
Item No.:	600-401-DA8
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	The Na ⁺ /H ⁺ 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.
Synonyms:	Nhe-1 Antibody, APNH, NHE1, NHE-1, APNH1, APNH
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	SLC9A1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-Nhe-1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 17 amino acid synthetic peptide near the internal region 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:	<ul style="list-style-type: none">• 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

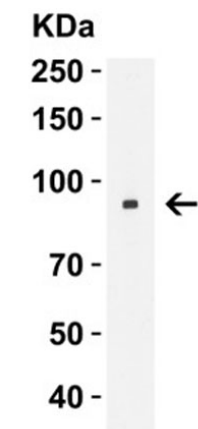
Shipping & Handling

Shipping Condition:	Dry Ice
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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



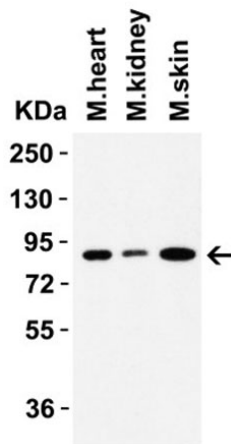
Western Blot

Western Blot of Nhe1.

Load: 10 µg of K562 Cell lysate.

Primary Antibody: Nhe-1 at 4 µg/mL for 1 h incubation at RT in 5% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



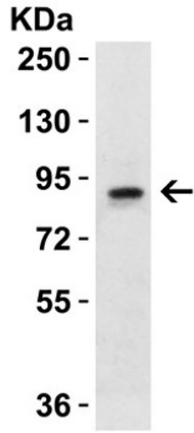
Western Blot

Western Blot of Nhe1.

Load: 15 µg of Mouse Tissue lysates per lane.

Primary Antibody: Nhe-1 at 1 µg/mL for 1 h incubation at RT in 5% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



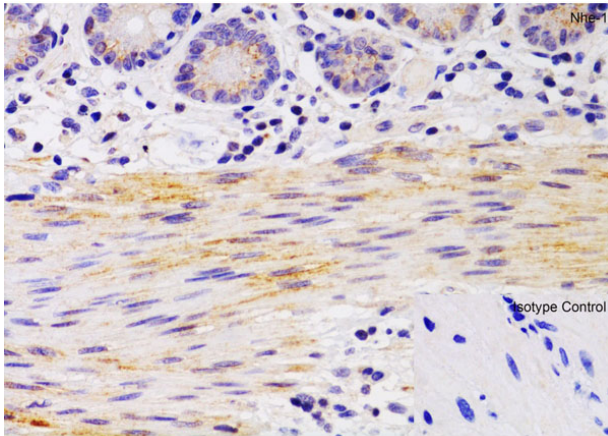
Western Blot

Western Blot of Nhe1.

Load: 15 μ g of rat brain lysate.

Primary Antibody: Nhe-1 at 1 μ g/mL for 1 h incubation at RT in 5% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



Immunohistochemistry

Immunohistochemistry of Nhe-1.

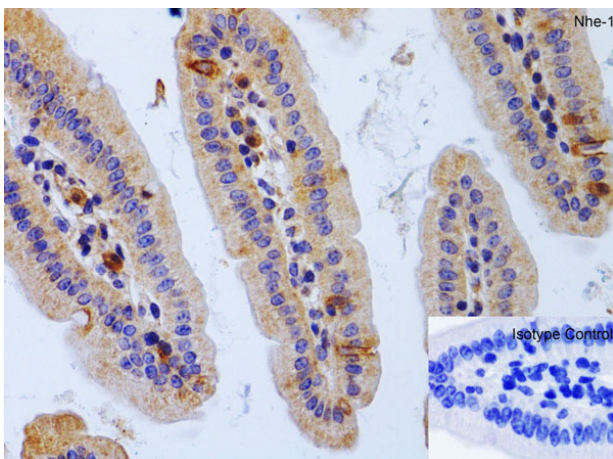
Tissue: Human Small Intestine.

Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen Retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-Nhe-1 antibody at 2 μ g/ml overnight at 4°C.

Secondary antibody: A goat anti-rabbit IgG H&L (HRP) at 1:250 dilution. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry of Nhe-1.

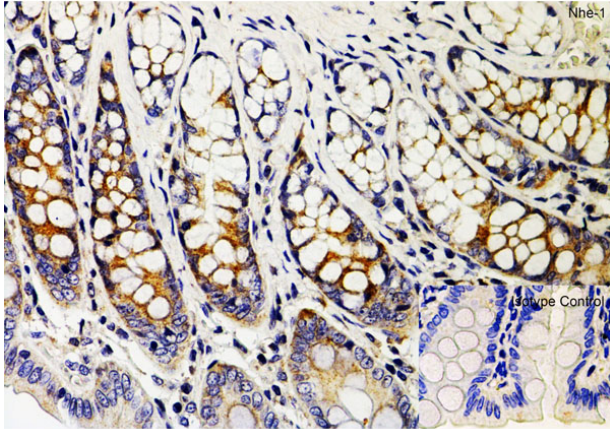
Tissue: Mouse Colon.

Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen Retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-Nhe-1 antibody at 1 μ g/ml overnight at 4°C.

Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1:250 dilution. Counter stained with Hematoxylin.

**Immunohistochemistry**

Immunohistochemistry of Nhe-1.

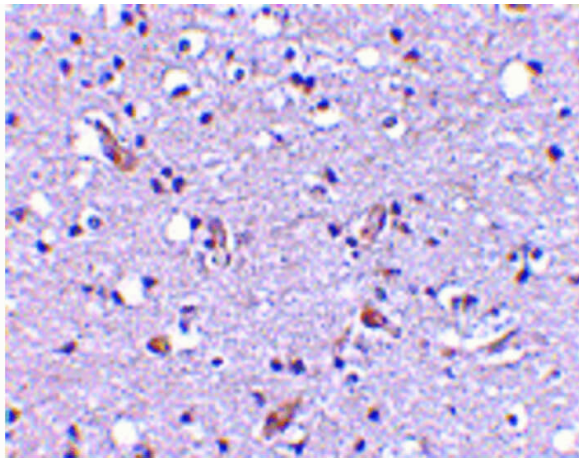
Tissue: Rat Small Intestine.

Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen Retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-Nhe-1 antibody at 1 µg/ml overnight at 4°C.

Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1:250 dilution. Counter stained with Hematoxylin.

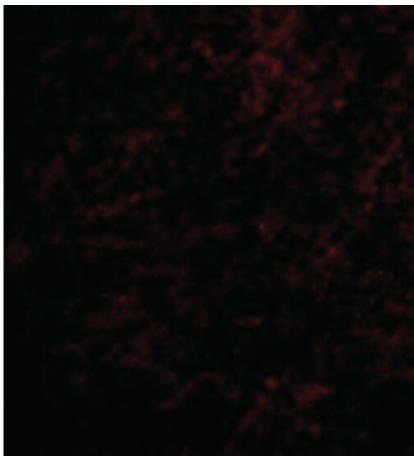
**Immunohistochemistry**

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 µg/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**

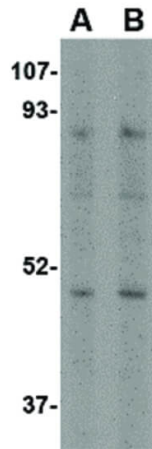
Immunofluorescence Microscopy of Nhe-1 antibody.

Tissue: Human brain cells. Fixation: 0.5% PFA. Antigen

retrieval: not required. Primary antibody: Nhe-1 antibody at 20 µg/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 a red fluorescent signal.

**Western Blot**

Western Blot of Nhe-1 antibody. Lane A: MOLT4 cell lysate at 1 µg/mL. Lane B: MOLT4 cell lysate 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.

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.