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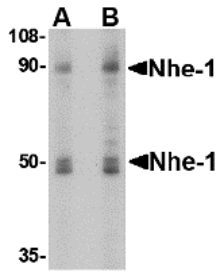
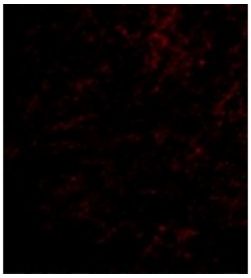
Nhe-1 Antibody

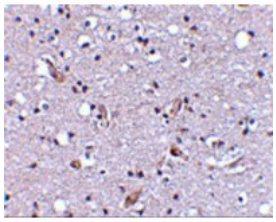
CATALOG NUMBER: 4379



Western blot analysis of Nhe-1 in MOLT4 cell lysate with in with Nhe-1 antibody at (A) 1 and (B) 2 ug/mL.



Immunofluorescence of Nhe-1 in Human Brain cells with Nhe-1 antibody at 20 ug/mL.



Immunohistochemical staining of human brain tissue using Nhe-1 antibody at 2.5 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Rabbit: (100%)
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	Nhe-1 antibody can be used for detection of Nhe-1 by Western blot at 1 - 2 ug/mL. Antibody can also be used for immunohistochemistry starting at 2.5 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1206 - MOLT4 Cell Lysate
IMMUNOGEN:	Nhe-1 antibody was raised against a 17 amino acid synthetic peptide near the center of the human Nhe-1. The immunogen is located within amino acids 490 - 540 of Nhe-1.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	Nhe-1 Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	Nhe-1 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	Nhe-1 antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	Nhe-1 Antibody: APNH, NHE1, NHE-1, APNH1, APNH

ACCESSION NO.:	P19634
PROTEIN GI NO.:	127809
OFFICIAL SYMBOL:	SLC9A1
GENE ID:	6548

Background

BACKGROUND:	Nhe-1 Antibody: 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.
REFERENCES:	1) Mendoza SA. The Na+-H+ antiport is a mediator of cell proliferation. Acta Paediatr. Scand.1987; 76:545-7.
	2) Denker SP, Huang DC, Orlowski J, et al. Direct binding of the NA—H exchanger NHE1 to ERM proteins regulates the cortical cytoskeleton and cell shape independently of H(+) translocation. Mol. Cell.2000; 6:1425-36.
	3) Cingolani HE, Rebolledo OR, Portiansky EL, et al. Regression of hypertensive myocardial fibrosis by NA (+)/H(+) exchange inhibition. Hypertension2003; 41:373-7.

FOR RESEARCH USE ONLY

December 13, 2016