

Nhe-1 Antibody
Catalog # ASC10604

Specification

Nhe-1 Antibody - Product Information

Application **WB, IHC, IF**
 Primary Accession [P19634](#)
 Other Accession [P19634](#), [127809](#)
 Reactivity **Human, Mouse, Rat**
 Host **Rabbit**
 Clonality **Polyclonal**
 Isotype **IgG**
 Calculated MW **Predicted: 52, 90 kDa**

Application Notes

Observed: 50, 90 kDa
Nhe-1 antibody can be used for detection of Nhe-1 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

Nhe-1 Antibody - Additional Information

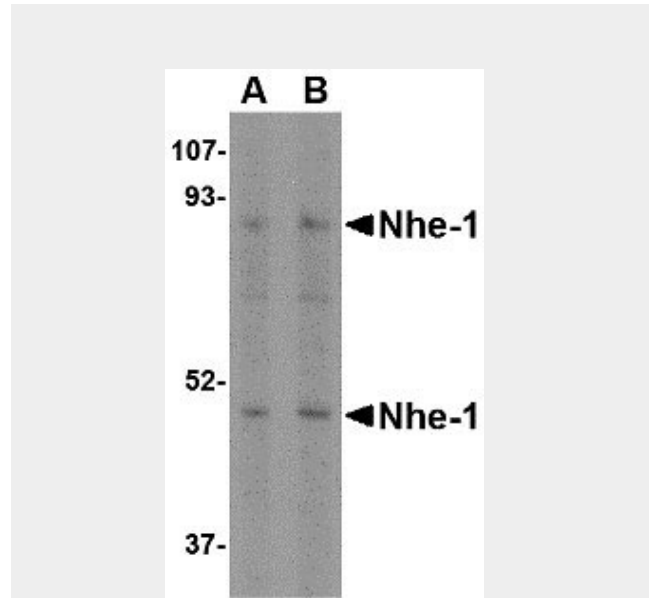
Gene ID **6548**
Target/Specificity
 SLC9A1; At least three isoforms of Nhe-1 are known to exist.

Reconstitution & Storage

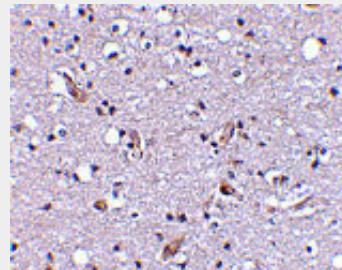
Nhe-1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

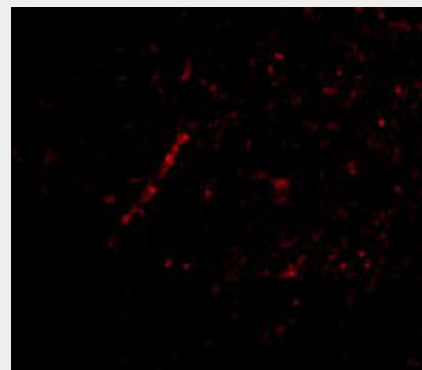
Nhe-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Western blot analysis of Nhe-1 in rat kidney tissue lysate with in with Nhe-1 antibody at (A) 1 and (B) 2 µg/mL.



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



Immunofluorescence of Nhe-1 in Human Brain tissue with Nhe-1 antibody at 20 µg/mL.

Nhe-1 Antibody - Protein Information

Name SLC9A1

Synonyms APNH1, NHE1

Function

Involved in pH regulation to eliminate acids generated by active metabolism or to counter adverse environmental conditions. Major proton extruding system driven by the inward sodium ion chemical gradient. Plays an important role in signal transduction.

Cellular Location

Membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein
Note=Colocalizes with CHP1 at the reticulum endoplasmic (By similarity). Colocalizes with CHP1 and CHP2 at the plasma membrane

Tissue Location

Kidney and intestine.

Nhe-1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Nhe-1 Antibody - 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.

Nhe-1 Antibody - References

Mendoza SA. The Na⁺-H⁺ antiport is a mediator of cell proliferation. *Acta Paediatr. Scand.* 1987; 76:545-7.
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.
Cingolani HE, Rebolledo OR, Portiansky EL, et al. Regression of hypertensive myocardial fibrosis by NA (+)/H(+) exchange inhibition. *Hypertension* 2003; 41:373-7.