

Anti-SLC9A1 Picoband Antibody
Catalog # ABO11849**Specification****Anti-SLC9A1 Picoband Antibody - Product Information**

| | |
|-------------------|------------------------|
| Application | WB, IHC |
| Primary Accession | P19634 |
| Host | Rabbit |
| Reactivity | Human, Mouse, Rat |
| Clonality | Polyclonal |
| Format | Lyophilized |

Description

Rabbit IgG polyclonal antibody for Sodium/hydrogen exchanger 1(SLC9A1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SLC9A1 Picoband Antibody - Additional Information**Gene ID 6548****Other Names**

Sodium/hydrogen exchanger 1, APNH, Na(+)/H(+) antiporter, amiloride-sensitive, Na(+)/H(+) exchanger 1, NHE-1, Solute carrier family 9 member 1, SLC9A1, APNH1, NHE1

Calculated MW

90763 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

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

Tissue Specificity

Kidney and intestine.

Protein Name

Sodium/hydrogen exchanger 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human SLC9A1 recombinant protein (Position: H543-Q815). Human SLC9A1 shares

92% and 93% amino acid (aa) sequences identity with mouse and rat SLC9A1, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r° Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the monovalent cation:proton antiporter 1 (CPA1) transporter (TC 2.A.36) family.

Anti-SLC9A1 Picoband Antibody - Protein Information

Name SLC9A1 ([HGNC:11071](#))

Function

Electroneutral Na(+) /H(+) antiporter that extrudes Na(+) in exchange for external protons driven by the inward sodium ion chemical gradient, protecting cells from acidification that occurs from metabolism (PubMed:7110335, PubMed:7603840, PubMed:11532004, PubMed:11350981, PubMed:15035633, PubMed:14680478, PubMed:17073455, PubMed:22020933, PubMed:27650500, PubMed:15677483, PubMed:32130622, PubMed:17493937). Exchanges intracellular H(+) ions for extracellular Na(+) in 1:1 stoichiometry (By similarity). Plays a key role in maintaining intracellular pH neutral and cell volume, and thus is important for cell growth, proliferation, migration and survival (PubMed:8901634, PubMed:12947095, PubMed:15096511, PubMed:22020933). In addition, can transport lithium Li(+) and functions also as a Na(+)/Li(+) antiporter (PubMed:7603840). SLC9A1 also functions in membrane anchoring and organization of scaffolding complexes that coordinate signaling inputs (PubMed:15096511).

Cellular Location

Cell membrane; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:P48762}; Multi-pass membrane protein. Note=Localized basolaterally in every epithelial cell, except in the choroid plexus where SLC9A1 is expressed luminally.

Tissue Location

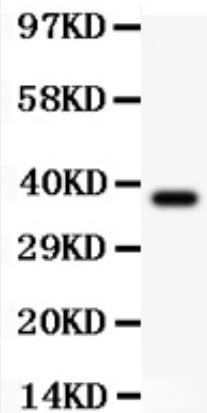
Kidney and intestine.

Anti-SLC9A1 Picoband 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](#)

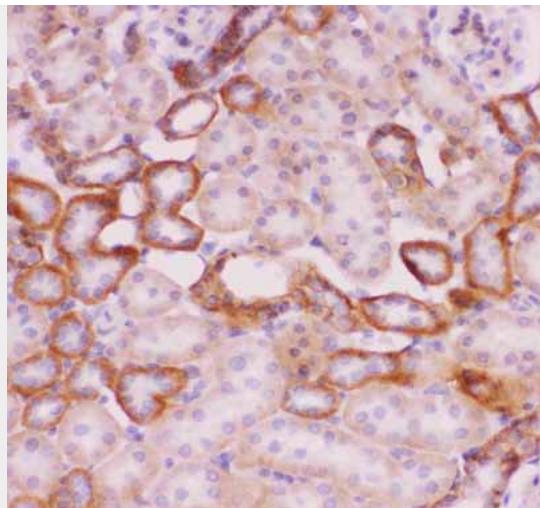
Anti-SLC9A1 Picoband Antibody - Images



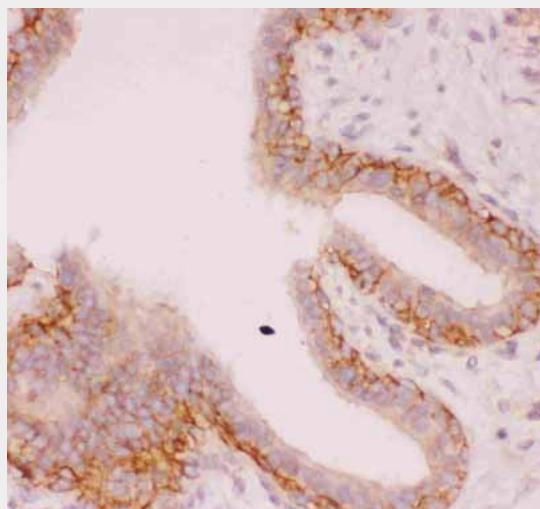
Anti-SLC9A1 Picoband antibody, ABO11849-1.jpg
All lanes: Anti SLC9A1 (ABO11849) at 0.5ug/ml
WB: Recombinant Human Sodium Protein 0.5ng
Predicted bind size: 37KD
Observed bind size: 37KD



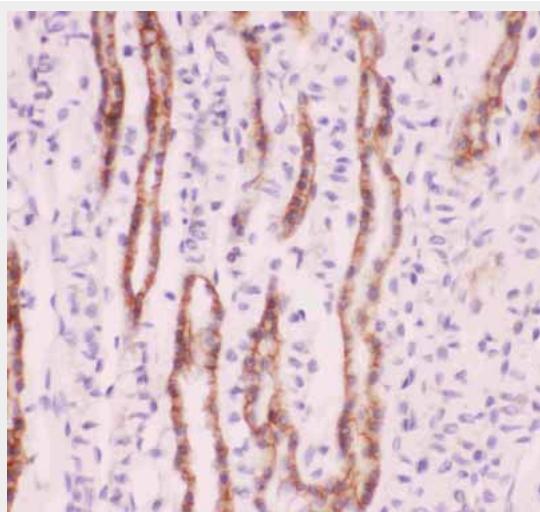
Anti-SLC9A1 Picoband antibody, ABO11849-2.jpg
All lanes: Anti SLC9A1 (ABO11849) at 0.5ug/ml
Lane 1: PC-12 Whole Cell Lysate at 40ug
Lane 2: MCF-7 Whole Cell Lysate at 40ug
Predicted bind size: 91KD
Observed bind size: 91KD



Anti-SLC9A1 Picoband antibody, ABO11849-3.JPGIHC(P): Rat Kidney Tissue



Anti-SLC9A1 Picoband antibody, ABO11849-4.JPGIHC(P): Human Mammary Cancer Tissue



Anti-SLC9A1 Picoband antibody, ABO11849-5.JPGIHC(P): Mouse Kidney Tissue

Anti-SLC9A1 Picoband Antibody - Background

NHE1, also known as SLC9A1, is an isoform of sodiumâ€“hydrogen antiporter that in humans is encoded by the SLC9A1 gene. It is mapped to 1p36.11. NHE1 is a ubiquitous membrane-bound enzyme involved in pH regulation of vertebrate cells. It is specifically inhibited by the diuretic drug amiloride and activated by a variety of signals including growth factors, mitogens, neurotransmitters, tumor promoters, and others. The plasma membrane ion exchanger NHE1 acts as an anchor for actin filaments to control the integrity of the cortical cytoskeleton. And a structural role for NHE1 in regulating the cortical cytoskeleton that is independent of its function as an ion exchanger. NHE1 is a plausible candidate gene for human essential hypertension.