10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-SLC9A1 Picoband Antibody

Catalog # ABO11849

Product Information

Application	WB, IHC-P
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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/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.
Source	Eukaryota
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.

Protein Information

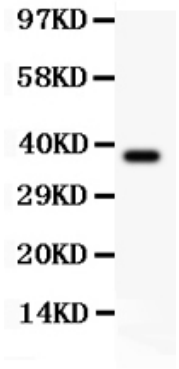
Name	SLC9A1 (HGNC:11071)
Function	Electroneutral Na(+) /H(+) antiporter that extrudes Na(+) in exchange for external protons driven by the inward sodium ion chemical gradient, protecting cells from acidification that occurs from metabolism (PubMed:11350981, PubMed:11532004, PubMed:14680478, PubMed:15035633, PubMed:15677483, PubMed:17073455, PubMed:17493937, PubMed:22020933, PubMed:27650500, PubMed:32130622, PubMed:7110335, PubMed:7603840). Exchanges intracellular H(+) ions for extracellular Na(+) in 1:1 stoichiometry (By similarity). Plays a key role in maintening intracellular pH neutral and cell volume, and thus is important for cell growth, proliferation, migration and survival (PubMed:12947095, PubMed:15096511, PubMed:22020933, PubMed:8901634). In addition, can transport lithium Li(+) and also functions 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.

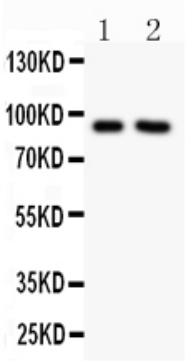
Background

NHE1, also known as SLC9A1, is an isoform of sodium □€“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.

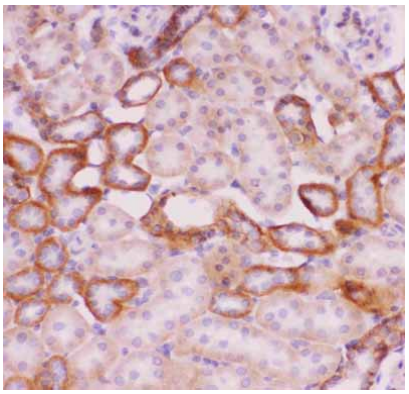
Images

Anti-SLC9A1 Picoband antibody, ABO11849-1.jpgAll lanes: Anti SLC9A1 (ABO11849) at 0.5ug/mlWB: Recombinant Human Sodium Protein 0.5ngPredicted bind size: 37KDObserved bind size: 37KD

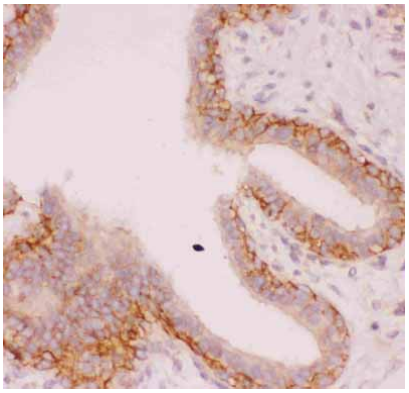




Anti-SLC9A1 Picoband antibody, ABO11849-2.jpgAll lanes: Anti SLC9A1 (ABO11849) at 0.5ug/mlLane 1: PC-12 Whole Cell Lysate at 40ugLane 2: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 91KDObserved bind size: 91KD

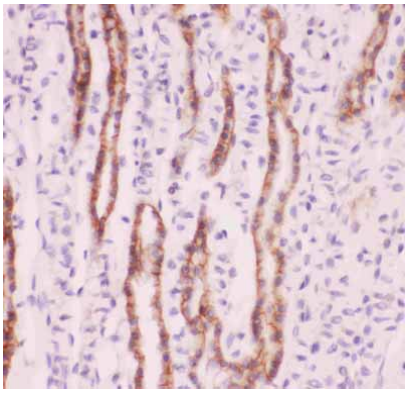


Anti-SLC9A1 Picoband antibody, ABO11849-3.JPGIHC(P): Rat Kidney Tissue



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

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



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