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phospho-NHE3 (Ser552) Rabbit pAb

Catalog # AP97400

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P48764
Other Accession	P48764
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92855
Physical State	Liquid
Immunogen	KLH conjugated synthesised phosphopeptide derived from rat NHE-3 around the phosphorylation site of Ser552 (human Ser555)
Epitope Specificity	RG(p-S)LA
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the monovalent cation:proton antiporter 1 (CPA1) transporter (TC 2.A.36) family.
SUBUNIT	Binds SLC9A3R1 and SLC9A3R2. Interacts with CHP1, CHP2 and SHANK2. Interacts with PDZD3 and interactions decrease in response to elevated calcium ion levels
Post-translational modifications	Phosphorylated by PKA, which inhibits activity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	NHE-3 are integral membrane proteins that are expressed in most mammalian tissues, where they regulate intracellular pH and cell volume. NHEs mediate the transport of hydrogen (H+) ions out of cells in exchange for extracellular sodium (Na+) ions. While NHE-1 is ubiquitously expressed, the NHE isoforms 2-8 have distinct tissue- and cell type-dependent expression and inhibitory characteristics. NHE-3 localizes to the apical membrane of renal proximal tubules where it is responsible for most of the sodium transport and fluid reabsorption. NHE-3 translocates to internal pools where it mediates natriuresis when blood pressure increases abruptly. NHE-3 is also expressed in the stomach and functions to protect the mucosa by secreting protons that diffuse into the mucous cells.

Additional Information

Gene ID	6550
Other Names	DIAR8; NHE-3; NHE3; SL9A3_HUMAN; SLC9A3; Na(+)/H(+) exchanger 3 (NHE-3); Solute carrier family 9 member 3; SL9A3_RAT; solute carrier family 9 member A3; solute carrier family 9 (sodium/hydrogen exchanger), isoform 3; solute carrier family 9 (sodium/hydrogen exchanger), member 3; solute

	carrier family 9, subfamily A (NHE3, cation proton antiporter 3), member 3; Sodium/hydrogen exchanger 3; SLC9A3 | NHE3 (phospho-S552); p-NHE3; phospho-NHE3; p-SLC9A3; SLC9A3 | NHE3 (phospho-Ser552)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SLC9A3 (HGNC:11073)
Function	Plasma membrane Na(+)/H(+) antiporter (PubMed: 18829453, PubMed:26358773, PubMed:35613257). Exchanges intracellular H(+) ions for extracellular Na(+) in 1:1 stoichiometry, playing a key role in salt and fluid absorption and pH homeostasis (By similarity). Major apical Na(+)/H(+) exchanger in kidney and intestine playing an important role in renal and intestine Na(+) absorption and blood pressure regulation (PubMed:24622516, PubMed:26358773).
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Recycling endosome membrane; Multi-pass membrane protein. Early endosome membrane; Multi-pass membrane protein. Note=In intestinal epithelial cells, localizes to the ileal brush border. Phosphorylation at Ser-663 by SGK1 is associated with increased abundance at the cell membrane Angiotensin-2 enhances apical expression (By similarity) {ECO:0000250|UniProtKB:Q28362}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.