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Anti-NHE5 Antibody

Catalog # AP59936

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q14940
Reactivity	Human, Mouse, Rat, Pig, Bovine, Dog, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	99011

Additional Information

Gene ID	6553
Other Names	NHE5; Sodium/hydrogen exchanger 5; Na(+)/H(+) exchanger 5; NHE-5; Solute carrier family 9 member 5
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human NHE5. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

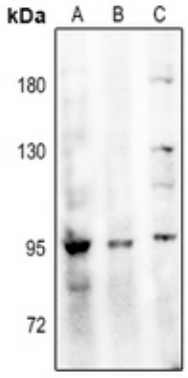
Name	SLC9A5 (HGNC:11078)
Synonyms	NHE5
Function	Plasma membrane Na(+)/H(+) antiporter. Mediates the electroneutral exchange of intracellular H(+) ions for extracellular Na(+) in 1:1 stoichiometry, thus regulating intracellular pH homeostasis, in particular in neural tissues (PubMed:10692428, PubMed:19276089, PubMed:24936055, PubMed:9933641). Acts as a negative regulator of dendritic spine growth (PubMed:21551074). Plays a role in postsynaptic remodeling and signaling (PubMed:21551074, PubMed:24006492). Can also contribute to organellar pH regulation, with consequences for receptor tyrosine kinase trafficking (PubMed:24936055).
Cellular Location	Cell membrane; Multi-pass membrane protein. Recycling endosome membrane; Multi-pass membrane protein. Cell projection, dendritic spine membrane; Multi-pass membrane protein. Synaptic cell membrane;

Multi-pass membrane protein. Cell junction, focal adhesion. Note=Cycles between recycling endosome and plasma membrane in response to diverse stimuli. Its internalization is clathrin- and beta-arrestin dependent and its plasma membrane insertion from the recycling endosomes requires phosphoinositide 3- kinase (PIK3CA) and SCAMP2.

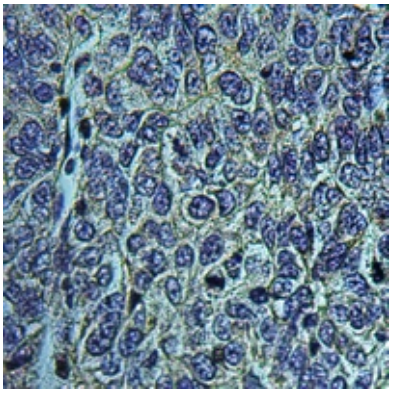
Tissue Location

Mainly expressed in brain (PubMed:7759094, PubMed:9933641). Expressed in neurons of the central and peripheral nervous system (PubMed:21551074, PubMed:9933641). Expressed also in testis, spleen, and skeletal muscle (PubMed:7759094)

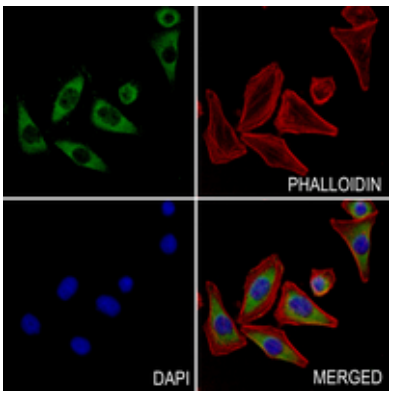
Images



Western blot analysis of NHE5 expression in A549 (A), HEK293T (B), MEF (C) whole cell lysates. (Predicted band size: 99 kD; Observed band size: 99 kD)



Immunohistochemical analysis of NHE5 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of NHE5 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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