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PDZK1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14851c

Product Information

Application	IHC-P, WB, E
Primary Accession	Q5T2W1
Other Accession	A8MUH7, NP_002605.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34937
Calculated MW	57129
Antigen Region	196-224

Additional Information

Gene ID	5174
Other Names	Na(+)/H(+) exchange regulatory cofactor NHE-RF3, NHERF-3, CFTR-associated protein of 70 kDa, Na(+)/H(+) exchanger regulatory factor 3, Na/Pi cotransporter C-terminal-associated protein 1, NaPi-Cap1, PDZ domain-containing protein 1, Sodium-hydrogen exchanger regulatory factor 3, PDZK1, CAP70, NHERF3, PDZD1
Target/Specificity	This PDZK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 196-224 amino acids from the Central region of human PDZK1.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PDZK1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PDZK1

Synonyms	CAP70, NHERF3, PDZD1
Function	A scaffold protein that connects plasma membrane proteins and regulatory components, regulating their surface expression in epithelial cells apical domains. May be involved in the coordination of a diverse range of regulatory processes for ion transport and second messenger cascades. In complex with NHERF1, may cluster proteins that are functionally dependent in a mutual fashion and modulate the trafficking and the activity of the associated membrane proteins. May play a role in the cellular mechanisms associated with multidrug resistance through its interaction with ABCC2 and PDZK1IP1. May potentiate the CFTR chloride channel activity. Required for normal cell-surface expression of SCARB1. Plays a role in maintaining normal plasma cholesterol levels via its effects on SCARB1. Plays a role in the normal localization and function of the chloride-anion exchanger SLC26A6 to the plasma membrane in the brush border of the proximal tubule of the kidney. May be involved in the regulation of proximal tubular Na(+)-dependent inorganic phosphate cotransport therefore playing an important role in tubule function (By similarity).
Cellular Location	Membrane {ECO:0000250|UniProtKB:Q9JJ40}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9JJ40}. Cell membrane {ECO:0000250|UniProtKB:Q9JIL4}. Note=Associated with peripheral membranes. Localizes to the apical compartment of proximal tubular cells and to sinusoidal liver membranes {ECO:0000250|UniProtKB:Q9JJ40}
Tissue Location	Expression is limited to epithelial cells. Expressed in the kidney (brush border of proximal tubule), pancreas, liver, and small intestine. Expressed at a lower level in the adrenal cortex, testis and stomach. Overexpressed in breast, renal and lung carcinomas.

Background

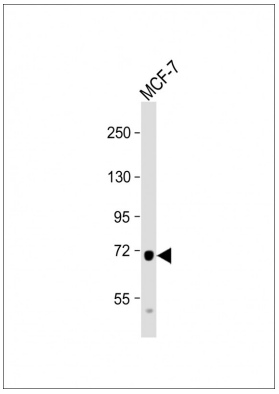
A scaffold protein that connects plasma membrane proteins and regulatory components, regulating their surface expression in epithelial cells apical domains. May be involved in the coordination of a diverse range of regulatory processes for ion transport and second messenger cascades. In complex with SLC9A3R1, may cluster proteins that are functionally dependent in a mutual fashion and modulate the trafficking and the activity of the associated membrane proteins. May play a role in the cellular mechanisms associated with multidrug resistance through its interaction with ABCC2 and PDZK1IP1. May potentiate the CFTR chloride channel activity. May function to connect SCARB1 with the cellular machineries for intracellular cholesterol transport and/or metabolism. May be involved in the regulation of proximal tubular Na(+)-dependent inorganic phosphate cotransport therefore playing an important role in tubule function (By similarity).

References

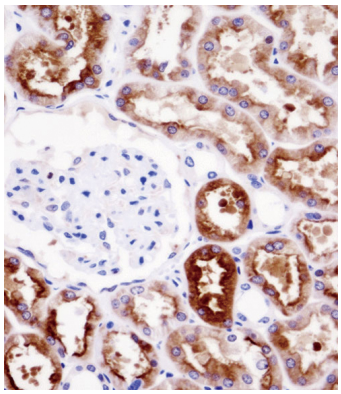
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
LaLonde, D.P., et al. Mol. Biol. Cell 21(9):1519-1529(2010)
Polasek, O., et al. Croat. Med. J. 51(1):32-39(2010)
Gunjaca, G., et al. Croat. Med. J. 51(1):23-31(2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)

Images

Anti-PDZK1 Antibody (Center) at 1:1000 dilution + MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57



kDa Blocking/Dilution buffer: 5% NFDM/TBST.



PDZK1 Antibody (Center) (AP14851c)immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PDZK1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.