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PDZK1 Recombinant Rabbit mAb

Catalog # AP100032

Product Information

Application	IHC-P, IHC-F, IF, IP
Primary Accession	Q5T2W1
Other Accession	Q5T2W1
Reactivity	Human
Host	Rabbit
Clonality	Recombinant
Calculated MW	57129
Physical State	Liquid
Immunogen	A synthesized peptide derived from human PDZK1
Epitope Specificity	450-519/519
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Belongs to the NHER family. Contains 4 PDZ (DHR) domains.
SUBUNIT	Interacts with PDZK1IP1 and ABCC2. Binds to the C-terminal region of SLC26A3. Interacts via its PDZ1 domain with the C-terminal domain of SCARB1. Forms a heterodimeric complex with SLC9A3R1. Interacts with AKAP2, BCR, CFTR, SLC22A12, SLC22A4, SLC22A5, SLC26A6, SLC9A3R2 and SLC17A1. Component of a complex, composed of PDZK1, SYNGAP1, KLHL17 and NMDA receptors. Interacts (via PDZ1 domain) directly with KLHL17; the interaction is important for integrity of actin cytoskeleton structures in neurons (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Gene ID	5174
Other Names	CAP70; CLAMP; NHERF-3; NHERF3; PDZD1; 1700023D20Rik; 2610507N21Rik; 4921513F16Rik; D3Ertd537e; mPDZK1; naPi-Cap1; NHRF3_HUMAN; PDZK1; 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; NHRF3_MOUSE; NHRF3_RABIT; NHRF3_RAT; C-terminal-linking and

	modulating protein; Dietary Pi-regulated RNA-1; Diphor-1; Diphor1; PDZ domain containing 1; Na(+)/H(+) exchange regulatory cofactor 3; Na/Pi cotransporter C-terminal-associated protein 1
Dilution	IP=1:20-50,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	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.

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