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Anti-ATP6V1B1 Antibody

Catalog # AP51878

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P15313
Reactivity	Human, Mouse, Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56833

Additional Information

Gene ID	525
Other Names	ATP6B1; VATB; VPP3; V-type proton ATPase subunit B, kidney isoform; V-ATPase subunit B 1; Endomembrane proton pump 58 kDa subunit; Vacuolar proton pump subunit B 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human ATP6V1B1. 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

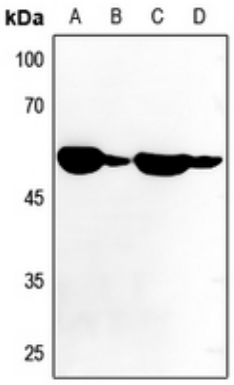
Name	ATP6V1B1
Synonyms	ATP6B1, VATB, VPP3
Function	Non-catalytic subunit of the V1 complex of vacuolar(H+)- ATPase (V-ATPase), a multisubunit enzyme composed of a peripheral complex (V1) that hydrolyzes ATP and a membrane integral complex (V0) that translocates protons (PubMed:16769747). V-ATPase is responsible for acidifying and maintaining the pH of intracellular compartments and in some cell types, is targeted to the plasma membrane, where it is responsible for acidifying the extracellular environment (PubMed:32001091). Essential for the proper assembly and activity of V- ATPase (PubMed:16769747). In renal intercalated cells, mediates secretion of protons (H+) into the urine thereby ensuring correct urinary acidification (PubMed:16769747). Required for optimal olfactory function by mediating the acidification of the nasal olfactory epithelium (By similarity).

Cellular Location	Apical cell membrane. Basolateral cell membrane {ECO:0000250|UniProtKB:Q91YH6}
Tissue Location	Kidney; localizes to early distal nephron, encompassing thick ascending limbs and distal convoluted tubules (at protein level) (PubMed:16769747, PubMed:29993276). Expressed in the cochlea and endolymphatic sac (PubMed:9916796)

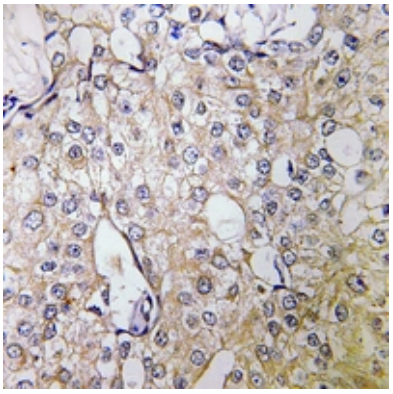
References

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Ota T.,et al.Nat. Genet. 36:40-45(2004).
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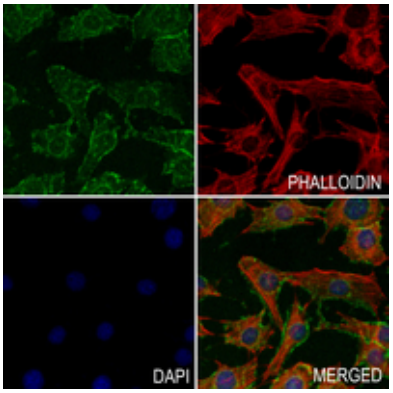
Images



Western blot analysis of ATP6V1B1 expression in mouse lung (A), mouse kidney (B), rat lung (C), rat kidney (D) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 57 kD)



Immunohistochemical analysis of ATP6V1B1 staining in human breast 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 ATP6V1B1 staining in NIH3T3 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).

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