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ATP6V0A4 Blocking Peptide (Center)

Synthetic peptide
Catalog # BP5369c

Specification

ATP6V0A4 Blocking Peptide (Center) - Product Information

Primary Accession	Q9HBG4
Other Accession	NP_570856.2, NP_570855.2

ATP6V0A4 Blocking Peptide (Center) - Additional Information

Gene ID 50617

Other Names
V-type proton ATPase 116 kDa subunit a isoform 4, V-ATPase 116 kDa isoform a4, Vacuolar proton translocating ATPase 116 kDa subunit a isoform 4, Vacuolar proton translocating ATPase 116 kDa subunit a kidney isoform, ATP6V0A4, ATP6N1B, ATP6N2

Target/Specificity
The synthetic peptide sequence is selected from aa 250-261 of HUMAN ATP6V0A4

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ATP6V0A4 Blocking Peptide (Center) - Protein Information

Name ATP6V0A4

Synonyms ATP6N1B, ATP6N2

Function
Subunit of the V0 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 (By similarity). 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 (By similarity). Involved in normal vectorial acid transport into the urine by the kidney (PubMed:10973252, PubMed:12414817).

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:Q920R6}; Multi-pass membrane protein. Note=Localizes to the apical surface of alpha- intercalated cells in the cortical collecting ducts of the distal nephron (PubMed:10973252). Localizes to the basolateral surface of beta-intercalated cells in the cortical collecting ducts of the distal nephron (By similarity). {ECO:0000250|UniProtKB:Q920R6, ECO:0000269|PubMed:10973252}

Tissue Location
Expressed in adult and fetal kidney. Found in the inner ear.

ATP6V0A4 Blocking Peptide (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ATP6V0A4 Blocking Peptide (Center) - Images

ATP6V0A4 Blocking Peptide (Center) - Background

This gene encodes a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of intracellular compartments of eukaryotic cells. V-ATPase dependent acidification is necessary for such intracellular processes as protein sorting, zymogen activation, receptor-mediated endocytosis, and synaptic vesicle proton gradient generation. V-ATPase is composed of a cytosolic V1 domain and a transmembrane V0 domain. The V1 domain consists of three A and three B subunits, two G subunits plus the C, D, E, F, and H subunits. The V1 domain contains the ATP catalytic site. The V0 domain consists of five different subunits: a, c, c', c'', and d. This gene is one of four genes in man and mouse that encode different isoforms of the a subunit. Alternatively spliced transcript variants encoding the same protein have been described. Mutations in this gene are associated with renal tubular acidosis associated with preserved hearing.

ATP6V0A4 Blocking Peptide (Center) - References

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