

Recombinant Human ATP, His-tagged

Cat. No. ATP6V1B1-10041H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ATPHis-tag, was expressed in E.coli and purified by Ni-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-327a.a.
Description	This gene encodes a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of eukaryotic intracellular organelles. V-ATPase dependent organelle 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. Additional isoforms of many of the V1 and V0 subunit proteins are encoded by multiple genes or alternatively spliced transcript variants. This encoded protein is one of two V1 domain B subunit isoforms and is found in the kidney. Mutations in this gene cause distal renal tubular acidosis associated with sensorineural deafness.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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Storage Buffer

1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.

GENE INFORMATION
Gene Name

ATP6V1B1 ATPase, H⁺ transporting, lysosomal 56/58kDa, V1 subunit B1 [Homo sapiens]

Official Symbol

ATP6V1B1

Synonyms

ATP6V1B1; ATPase, H⁺ transporting, lysosomal 56/58kDa, V1 subunit B1; ATP6B1, vacuolar proton pump 3 , VPP3; V-type proton ATPase subunit B, kidney isoform; Renal tubular acidosis with deafness; RTA1B; VATB; Vma2; V-ATPase B1 subunit; V-ATPase subunit B 1; vacuolar proton pump 3; H⁺-ATPase beta 1 subunit; vacuolar proton pump, subunit 3; vacuolar proton pump subunit B 1; endomembrane proton pump 58 kDa subunit; H(+)-transporting two-sector ATPase, 58kD subunit; VMA2; VPP3; ATP6B1; MGC32642;

Gene ID

525

mRNA Refseq

NM_001692

Protein Refseq

NP_001683

MIM

192132

UniProt ID

P15313

Chromosome Location

2p13

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Pathway

Collecting duct acid secretion, organism-specific biosystem; Collecting duct acid secretion, conserved biosystem; Epithelial cell signaling in Helicobacter pylori infection, organism-specific biosystem; Epithelial cell signaling in Helicobacter pylori infection, conserved biosystem; Insulin receptor recycling, organism-specific biosystem; Iron uptake and transport, organism-specific biosystem; Metabolic pathways, organism-specific biosystem;

Function

ATP binding; hydrogen ion transmembrane transporter activity; hydrogen ion transporting ATP synthase activity, rotational mechanism; hydrolase activity; hydrolase activity, acting on acid anhydrides, catalyzing transmembrane movement of substances; proton

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