

Recombinant Human ATP, His-tagged

Cat. No. ATP6V1A-10040H **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	268-617a.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", 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 A subunit isoforms and is found in all tissues. Transcript variants derived from alternative polyadenylation exist.
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

 45-1 Ramsey Road, Shirley, NY 11967, USA

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

ATP6V1A ATPase, H⁺ transporting, lysosomal 70kDa, V1 subunit A [Homo sapiens]

Official Symbol

ATP6V1A

Synonyms

ATP6V1A; ATPase, H⁺ transporting, lysosomal 70kDa, V1 subunit A; ATP6A1, ATP6V1A1, ATPase, H⁺ transporting, lysosomal (vacuolar proton pump), alpha polypeptide, 70kD, isoform 1 , VPP2; V-type proton ATPase catalytic subunit A; VA68; Vma1; V-ATPase subunit A; V-ATPase A subunit 1; V-ATPase 69 kDa subunit 1; vacuolar ATPase isoform VA68; vacuolar proton pump subunit alpha; vacuolar proton pump alpha subunit 1; ATPase, H⁺ transporting, lysosomal, subunit A1; H(+)-transporting two-sector ATPase, subunit A; H⁺-transporting ATPase chain A, vacuolar (VA68 type); vacuolar ATP synthase catalytic subunit A, ubiquitous isoform; HO68; VPP2; ATP6A1; ATP6V1A1;

Gene ID

523

mRNA Refseq

NM_001690

Protein Refseq

NP_001681

MIM

607027

UniProt ID

P38606

**Chromosome
Location**

3q13.31

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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 transporting ATP synthase activity, rotational mechanism; hydrolase activity; hydrolase activity, acting on acid anhydrides, catalyzing transmembrane movement of substances; nucleotide binding; proton-transporting ATPase activity

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