

## Active Recombinant Human ATP1B1 Protein (63-303aa), C-His tagged

**Cat. No.** ATP1B1-17H    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

Recombinant human ATP1B1 protein (63-303aa), fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

#### Species

Human

#### Source

Insect Cells

#### ProteinLength

63-303aa

#### Description

The protein encoded by this gene belongs to the family of Na<sup>+</sup>/K<sup>+</sup> and H<sup>+</sup>/K<sup>+</sup> ATPases beta chain proteins, and to the subfamily of Na<sup>+</sup>/K<sup>+</sup> -ATPases. Na<sup>+</sup>/K<sup>+</sup> -ATPase is an integral membrane protein responsible for establishing and maintaining the electrochemical gradients of Na and K ions across the plasma membrane. These gradients are essential for osmoregulation, for sodium-coupled transport of a variety of organic and inorganic molecules, and for electrical excitability of nerve and muscle. This enzyme is composed of two subunits, a large catalytic subunit (alpha) and a smaller glycoprotein subunit (beta). The beta subunit regulates, through assembly of alpha/beta heterodimers, the number of sodium pumps transported to the plasma membrane. The glycoprotein subunit of Na<sup>+</sup>/K<sup>+</sup> -ATPase is encoded by multiple genes. This gene encodes a beta 1 subunit. Alternatively spliced transcript variants encoding different isoforms have been described, but their biological validity is not known.

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

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

|                       |                                                                                                                                                                                                                                                                      |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Liquid                                                                                                                                                                                                                                                               |
| <b>Bio-activity</b>   | > 3,000 pmol/min/μg, and is defined as the amount of enzyme that hydrolyze 1.0 pmole of Adenosine 5-triphosphate to phosphate per minute per minute at pH 7.5 at 25 centigrade.                                                                                      |
| <b>Molecular Mass</b> | 29 kDa (250aa)                                                                                                                                                                                                                                                       |
| <b>AA Sequence</b>    | EFKPTYQDRVAPPGLTQIPQIQKTEISFRPNDPKSYEAYVLNIVRFLEKYKDSAQRDD<br>MIFEDCGDVPSEPKERGDFNHERGERKVCRFKLEWLGNC SGLNDETYGYKEGKPC<br>IIIKLNRVLGFKPKPPKNESLETYPVMKYNPNVLPVQCTGKRDEDDKDKVGNVEYFGL<br>GNSPGFPLQYYPPYYGKLLQPKYLQPLLAVQFTNLTMDTEIRIECKAYGENIGYSEKD<br>RFQGRFDVKIEVKS |
| <b>Endotoxin</b>      | < 1 EU/μg of protein (determined by LAL method)                                                                                                                                                                                                                      |
| <b>Purity</b>         | > 90% by SDS-PAGE                                                                                                                                                                                                                                                    |
| <b>Applications</b>   | SDS-PAGE, Enzyme Activity                                                                                                                                                                                                                                            |
| <b>Notes</b>          | For research use only. This product is not intended or approved for human, diagnostics or veterinary use.                                                                                                                                                            |
| <b>Storage</b>        | Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.                                                                                                      |
| <b>Concentration</b>  | 0.5 mg/mL (determined by absorbance at 280nm)                                                                                                                                                                                                                        |
| <b>Storage Buffer</b> | Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol                                                                                                                                                                                                           |

## GENE INFORMATION

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

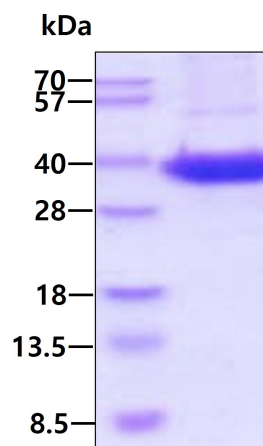
 45-1 Ramsey Road, Shirley, NY 11967, USA

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | ATP1B1 ATPase Na <sup>+</sup> /K <sup>+</sup> transporting subunit beta 1 [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Official Symbol</b> | ATP1B1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Synonyms</b>        | ATP1B1; ATPase Na <sup>+</sup> /K <sup>+</sup> transporting subunit beta 1; ATP1B; sodium/potassium-transporting ATPase subunit beta-1; ATPase, Na <sup>+</sup> /K <sup>+</sup> transporting, beta 1 polypeptide; Beta 1-subunit of Na(+),K(+)-ATPase; Na, K-ATPase beta-1 polypeptide; adenosinetriphosphatase; sodium pump subunit beta-1; sodium-potassium ATPase subunit beta 1 (non-catalytic); sodium/potassium-dependent ATPase beta-1 subunit; sodium/potassium-transporting ATPase beta-1 chain; EC 3.6.1.3 |
| <b>Gene ID</b>         | 481                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>mRNA Refseq</b>     | NM_001677                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Protein Refseq</b>  | NP_001668                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>MIM</b>             | 182330                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>UniProt ID</b>      | P05026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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

**SDS-PAGE**

3 µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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

Email: [info@creative-biomart.com](mailto:info@creative-biomart.com) Fax: 1-631-938-8127

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