# ATP1B1 Protein, Human (HEK293, His)

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| **Cat. No.:** | HY-P75586 |
| **Synonyms:** | Sodium/potassium-transporting ATPase subunit beta-1; ATP1B1; ATP1B |
| **Species:** | Human |
| **Source:** | HEK293 |
| **Accession:** | P05026-1 (E63-S303) |
| **Gene ID:** | 481 |
| **Molecular Weight:** | Approximately 40-50 kDa due to the glycosylation. |

## PROPERTIES

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| **AA Sequence** | E F K P T Y Q D R V A P P G L T Q I P Q I Q K T E I S F R P N D P K S Y E A Y V<br>L N I V R F L E K Y K D S A Q R D D M I F E D C G D V P S E P K E R G D F N H E<br>R G E R K V C R F K L E W L G N C S G L N D E T Y G Y K E G K P C I I I K L N R<br>V L G F K P K P P K N E S L E T Y P V M K Y N P N V L P V Q C T G K R D E D K D<br>K V G N V E Y F G L G N S P G F P L Q Y Y P Y Y G K L L Q P K Y L Q P L L A V Q<br>F T N L T M D T E I R I E C K A Y G E N I G Y S E K D R F Q G R F D V K I E V K<br>S |
| **Biological Activity** | The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet. |
| **Appearance** | Lyophilized powder. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. |
| **Endotoxin Level** | <1 EU/μg, determined by LAL method. |
| **Reconsititution** | It is not recommended to reconstitute to a concentration less than 100 μg/mL in $ddH_2O$. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose). |
| **Storage & Stability** | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| **Shipping** | Room temperature in continental US; may vary elsewhere. |

## DESCRIPTION

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| **Background** | The ATP1B1 protein serves as the non-catalytic component of the active enzyme that catalyzes the hydrolysis of ATP, facilitating the exchange of Na(+) and K(+) ions across the plasma membrane. Its regulatory role is manifested through the assembly of alpha/beta heterodimers, controlling the number of sodium pumps transported to the plasma membrane. |

Beyond its involvement in ion transport, ATP1B1 plays a vital role in innate immunity by amplifying virus-triggered induction of interferons (IFNs) and interferon-stimulated genes (ISGs). This immune-modulatory function involves the enhancement of TRAF3 and TRAF6 ubiquitination, as well as TAK1 and TBK1 phosphorylation. Additionally, ATP1B1 is implicated in cell adhesion and the establishment of epithelial cell polarity, underscoring its multifaceted contributions to cellular processes beyond ion homeostasis.



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