

ATP1B1 Protein, Human (HEK293, His)

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

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 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 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 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 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 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 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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. 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

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.
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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.

Caution: Product has not been fully validated for medical applications. For research use only.

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