

Recombinant human ATP1B1 protein

Catalog Number: ATGP3507

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

63-303aa

UniProt No.

P05026

NCBI Accession No.

NP_001668.1

Alternative Names

ATPase Na⁺/K⁺ transporting subunit beta 1, ATP1B1, ATP1B

PRODUCT SPECIFICATION

Molecular Weight

29kDa (250aa)

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 3,000pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1.0pmole of Adenosine 5-triphosphate to phosphate per minute per minute at pH 7.5 at 25C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Recombinant human ATP1B1 protein

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Description

ATP1B1, also known as ATPase Na⁺/K⁺ transporting subunit beta 1, belongs to the family of Na⁺/K⁺ and H⁺/K⁺ ATPases beta chain proteins, and to the subfamily of Na⁺/K⁺ -ATPases. Na⁺/K⁺ -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. The beta subunit regulates, through assembly of alpha/beta heterodimers, the number of sodium pumps transported to the plasma membrane. Recombinant human ATP1B1 protein, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

<ADP>EFKPTYQ DRVAPPGLTQ IPQIQKTEIS FRPNDPKSYE AYVLNIVRFL EKYKDSAQRD DMIFEDCGDV PSEPKERGDF NHERGERKVC RFKLEWLGNC SGLNDETYGY KEGKPCIIK LNRVLGFKPK PPKNESLETY PVMKYNPNVL PVQCTGKRDE DKDKVGNVEY FGLGNSPGFP LQYYPYGGKL LQPKYLQPLL AVQFTNLTMD TEIRIECKAY GENIGYSEKD RFQGRFDVKI EVKS<HHHHHH>

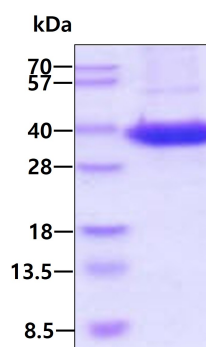
General References

Selvakumar P. et al., (2014) Pathol. Int. 9:579-586.

Shi JL. et al., (2016) Oncotarget. 19:2585-2595.

DATA

SDS-PAGE



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