

Human ATP1B1 Protein (His Tag)

Catalog Number: 14255-H07H



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Biological Solution Specialist

General Information

Gene Name Synonym:

ATP1B1; Atp4b; Atpb; Atpb-1; NKbeta1

Protein Construction:

A DNA sequence encoding the human ATP1B1 (P05026-1) (Glu63-Ser303) was expressed with an N-terminal polyhistidine tag.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human ATP1B1 comprises 261 amino acids and has a predicted molecular mass of 30.4 kDa. The apparent molecular mass of the protein is approximately 40-47 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

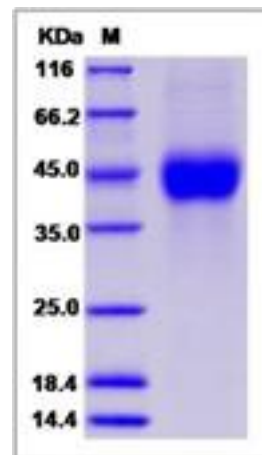
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

ATP1B1 belongs to the family of Na⁺/K⁺ and H⁺/K⁺-ATPases beta chain proteins, and to the subfamily of Na⁺/K⁺-ATPases. ATP1B1 is a subunit of Na⁺/K⁺-ATPase. 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. Na⁺/K⁺-ATPase is composed of two subunits, a large catalytic subunit (alpha) and a smaller glycoprotein subunit (beta). ATP1B1 regulates, through assembly of alpha/beta heterodimers, the number of sodium pumps transported to the plasma membrane. ATP1B1 is the non-catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with which catalyzes the hydrolysis of ATP coupled with the exchange of Na⁺ and K⁺ ions across the plasma membrane.

References

1. Lingrel JB. et al., 1990, Prog Nucleic Acid Res Mol Biol. 38: 37-89.
2. Oakey RJ. et al., 1993, Hum Mol Genet. 1 (8): 613-20.
3. Ushkaryov YuA. et al., 1990, FEBS Lett. 257 (2): 439-42.

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