# Recombinant Human Potassium-transporting ATPase alpha chain 1 (ATP4A), partial

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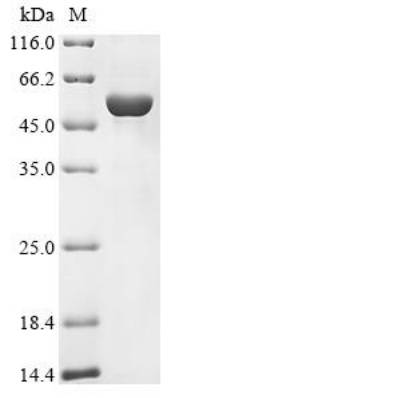
| **Product Code** | CSB-EP002342HU |
| **Abbreviation** | Recombinant Human ATP4A protein, partial |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | P20648 |
| **Form** | Liquid or Lyophilized powder |
| **Storage Buffer** | If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose. |
| **Product Type** | Recombinant Human Potassium-transporting ATPase alpha chain 1(ATP4A),partial |
| **Immunogen Species** | Homo sapiens (Human) |
| **Purity** | Greater than 85% as determined by SDS-PAGE. |
| **Sequence** | TVTVCLSLTAKRLASKNCVVKNLEAVETLGSTSVICSDKTGTLTQNRMTVSHL WFDNHIHTADTTEDQSGQTFDQSSETWRALCRVLTLCNRAAFKSGQDAVPVP KRIVIGDASETALLKFSELTLGNAMGYRDRFPKVCEIPFNSTNKFQLSIHTLEDP RDPRHLLVMKGAPERVLERCSSILIKGQELPLDEQWREAFQTAYLSLGGLGER VLGFCQLYLNEKDYPPGYAFDVEAMNFPSSGLCFAGLVSMIDPPRATVPDAVL KCRTAGIRVIMVTGDHPITAKAIAASVGIISEGSETVEDIAARLRVPVDQVNRKD ARACVINGMQLKDMDPSELVEALRTHPEMVFARTSPQQKLVIVESCQRLGAIV AVTGDGVNDSPALKKADIGVAMGIAGSDAAKNAADMILLDDNFASIVTGVEQG RLIFDNL |
| **Research Area** | Others |
| **Source** | E.coli |
| **Target Names** | ATP4A |
| **Expression Region** | 350-783aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | N-terminal 10xHis-tagged and C-terminal Myc-tagged |
| **Mol. Weight** | 54.6 kDa |
| **Protein Length** | Partial |
| **Image** | |




(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The expression region of this recombinant Human ATP4A covers amino acids 350-783. This ATP4A protein is theoretically predicted to have a molecular weight of 54.6 kDa. This ATP4A protein is produced using e.coli expression system. The ATP4A coding gene included the N-terminal 10xHis tag and C-terminal Myc tag, which simplifies the detection and purification processes of the recombinant ATP4A protein in following stages of expression and purification.

The human potassium-transporting ATPase alpha chain 1 (ATP4A) is a subunit of the gastric $H^+/K^+$-ATPase, an enzyme crucial for the secretion of gastric acid into the stomach. ATP4A is primarily expressed in the parietal cells of the gastric mucosa and plays a key role in maintaining the acidic environment of the stomach, which is essential for digestion. ATP4A is involved in the active transport of protons ($H^+$) into the stomach lumen, where they combine with chloride ions to form hydrochloric acid. This process is critical for the proper breakdown of ingested food. Dysfunction in ATP4A can lead to gastric acid-related disorders, such as peptic ulcers or gastroesophageal reflux disease (GERD). Understanding its function is vital for developing therapeutic strategies targeting acid-related gastrointestinal conditions.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

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