

## ATP synthase subunit alpha (ATP5A1) Recombinant Protein | ATP5A1 recombinant protein

Recombinant Human ATP synthase subunit alpha, mitochondrial (ATP5A1)

|                              |                                                                 |
|------------------------------|-----------------------------------------------------------------|
| CATALOG #<br><b>AAA18460</b> | HOST<br><b>E Coli or Yeast or Baculovirus or Mammalian Cell</b> |
|------------------------------|-----------------------------------------------------------------|

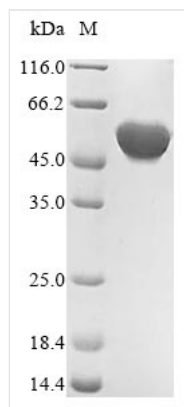
### PRODUCT SYNONYMS

ATP synthase subunit alpha (ATP5A1); Recombinant Human ATP synthase subunit alpha; mitochondrial (ATP5A1); ATP5A1 recombinant protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli or Yeast or Baculovirus or Mammalian Cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Purity/Purification     | Greater or equal to 85% purity as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Form/Format             | Lyophilized or liquid (Format to be determined during the manufacturing process)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Sequence Positions      | 44-553. Full Length of Mature Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Sequence                | QKTGTAEMSS ILEERILGAD TSV DLEETGR VLSIGDGIAR VHGLRNVQAE EMVEFSSGLK GMSLNLEPDN VGVVVF GNDK LIKEGDIVKR TGAIVDVPVG EELLGRV VDA LGNAIDGKGP IGSKT RRRVG LKAPGIIPRI SVREPMQTGI KAVDSLVP IGRQRELIIGD RQTGKTSIAI DTIINQKR FN DGSDEKKKLY CIYVAIGQKR STVAQLVKRL TDADAMKYTI VVSATASDAA PLQYLAPYSG CSMGEYFRDN GKHALIYDD LSKQAVAYRQ MSLLLRPPG REAYPGDV FY LHSRLLERAA KMND AFGGGS LTALPVIETQ AGDVSAYIPT NVISITDGQI FLETIFYKG IRPAINVGLS VSRVGSAAQT RAMKQVAGTM KLELAQYREV AAFAQFGSDL DAATQQLSR GVRLELLKQ GQYSPMAIEE QVAVIYAGVR GYLDKLEPSK ITKFENAF LS HVVSQHQALL GTIRADGKIS EQSDAKLKEI VTNFLAGFEA |
| Preparation and Storage | Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

### IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for ATP5A1 recombinant protein | Mitochondrial membrane ATP synthase (F1F0 ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F1 - containing the extramembraneous catalytic core, and F0 - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F1 is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F1. Rotation of the central stalk against the surrounding alpha3beta3 subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits. Subunit alpha does not bear the catalytic high-affinity ATP-binding sites. |
| Product Categories/Family for ATP5A1 recombinant protein   | Metabolism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| References                                                 | Nucleotide sequence of a cDNA for the alpha subunit of human mitochondrial ATP synthase.Kataoka H., Biswas C.Biochim. Biophys. Acta 1089:393-395(1991)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                          |
|----------------------------------|------------------------------------------------------------------------------------------|
| NCBI GI #                        | 50345982                                                                                 |
| NCBI GeneID                      | 498                                                                                      |
| NCBI Accession #                 | NP_001001935.1                                                                           |
| NCBI GenBank Nucleotide #        | NM_001001935.2                                                                           |
| UniProt Accession #              | P25705; Q53XX6; Q8IXV2; Q96FB4; Q96HW2; Q96IR6; Q9BTV8; A8K092; B4DY56; K7ENP3           |
| Molecular Weight                 | 57.2 kDa                                                                                 |
| NCBI Official Full Name          | ATP synthase subunit alpha, mitochondrial isoform c                                      |
| NCBI Official Synonym Full Names | ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle |
| NCBI Official Symbol             | ATP5A1                                                                                   |
| NCBI Official Synonym Symbols    | OMR; ORM; APM; MOM2; ATP5A; hATP1; MC5DN4; ATP5AL2; COXPD22; HEL-S-123m                  |
| NCBI Protein Information         | ATP synthase subunit alpha, mitochondrial                                                |
| UniProt Protein Name             | ATP synthase subunit alpha, mitochondrial                                                |
| UniProt Gene Name                | ATP5A1                                                                                   |
| UniProt Synonym Gene Names       | ATP5A; ATP5AL2; APM                                                                      |
| UniProt Entry Name               | ATPA_HUMAN                                                                               |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.