

# Recombinant human AMPK beta 1/PRKAB1 protein

Catalog Number: ATGP1786

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-270aa

### UniProt No.

Q9Y478

### NCBI Accession No.

NP\_006244.2

### Alternative Names

5'-AMP-activated protein kinase subunit beta-1, AMPK, HAMPKb, PRKAB1, Protein kinase AMP-activated non-catalytic subunit beta 1, AMPK subunit beta-1, AMPKb

## PRODUCT SPECIFICATION

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### Molecular Weight

32.8 kDa (293aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT

### Purity

> 85% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### 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

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### Description

5'-AMP-activated protein kinase subunit beta-1, also known as PRKAB1, inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation. AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin. Beta non-catalytic subunit acts as a scaffold on which the AMPK complex assembles, via its C-terminus that bridges alpha

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(PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2 or PRKAG3). Recombinant human PRKAB1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

## Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGS>MGNTSSE RAALERHGGH KTPRRDSSGG TKDGDRPKIL MDSPEDADLF  
HSEEIKAPEK EEFLAWQHDL EVNDKAPAQA RPTVFRWTGG GKEVYLSGSF NNWSKLPLTR SHNNFVAILD LPEGEHQYKF  
FVDGQWTHDP SEPIVTSQLG TVNNIIQVKK TDFEVFDALM VDSQKCS DVS ELSSPPGPY HQEPYVCKPE ERFRAPPI LP  
PHLLQVILNK DTGISCDPAL LPEPNHVMLN HLYALS IKDG VMVLSATHRY KKKYVTTLLY KPI

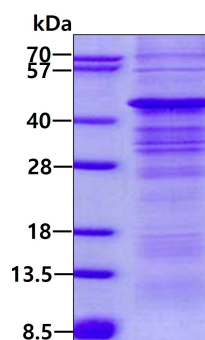
## General References

Hardie D.G., et al. (2007) Nat. Rev. Mol. Cell Biol. 8:774-785

Towler M.C., et al. (2007) Circ. Res. 100:328-341

## DATA

### SDS-PAGE



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