Recombinant human AMPK alpha 1 protein

Catalog Number: ATGP2985

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-279aa

UniProt No.
Q13131

NCBI Accession No.
NP_006242.2

Alternative Names
PRKAA1, 5-AMP-activated protein kinase catalytic subunit alpha-1 isoform 1, AMPK, AMPKa11

PRODUCT SPECIFICATION

Molecular Weight
34.3 kDa (302aa)

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

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

Description
PRKAA1 also known as 5-AMP-activated protein kinase catalytic subunit alpha-1 isoform 1. PRKAA1 is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinasen activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Recombinant human PRKAA1 protein, fused to His-tag at N-terminus, was expressed in E.

coli.

Amino acid Sequence

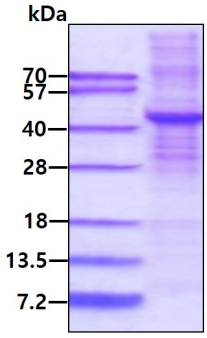
<MGSSHHHHHH SSGLVPRGSH MGS>MRRLSSW RKMATAEKQK HDGRVKIGHY ILGDTLGVGT FGKVKVGKHE LTGHKVAVKI LNRQKIRSLD VVGKIRREIQ NLKLFRHPHI IKLYQVISTP SDIFMVMEYV SGGELFDYIC KNGRLDEKES RRLFQQILSG VDYCHRHMVV HRDLKPENVL LDAHMNAKIA DFGLSNMMSD GEFLRTSCGS PNYAAPEVIS GRLYAGPEVD IWSSGVILYA LLCGTLPFDD DHVPTLFKKI CDGIFYTPQY LNPSVISLLK HMLQVDPMKR ATIKDIREHE WF

General References

Imamura K., et al. (2001) Biochem. Biophys. Res. Commun. 287:562-567
Yang W., et al. (2001) J. Biol. Chem. 276:38341-38344

DATA

SDS-PAGE



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