

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 kinases 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.

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Amino acid Sequence

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

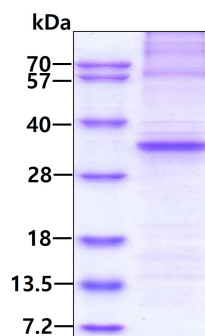
General References

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



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