

Recombinant human Alkaline Phosphatase/ALPP protein

Catalog Number: ATGP3266

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

23-506aa

UniProt No.

P05187

NCBI Accession No.

AAH09647.1

Alternative Names

ALPP, Alkaline phosphatase Regan isozyme, Placental alkaline phosphatase 1, PLAP-1

PRODUCT SPECIFICATION

Molecular Weight

53.9 kDa (494aa)

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 2,500unit/mg, and is defined as the amount of enzyme that hydrolyze 1.0nmole of p-nitrophenyl phosphate (pNPP) per minute at pH 7.5 at 37C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

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

ALPP, also known as alkaline phosphatase, placental, is a family of dimeric metalloenzymes catalyzing the hydrolysis of monoesters of phosphoric acid. Also, this protein catalyzes a transphosphorylation reaction in the presence of large concentrations of phosphate acceptors. It occurs widely in nature, and are found in many organisms from Escherichia coli to man. Most alkaline phosphatases are homodimeric enzymes and each catalytic site contains three metal ions (two Zn and one Mg), that are necessary for enzymatic activity. Recombinant human ALPP, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

<ADLM>IIPVEE ENPDFWNREA AEALGAAKKL QPAQTAANKL IIFLGDGMGV STVTAARILK GQKKDKLGPE LPLAMDRFPY VALSKTYNVD KHVPDSGATA TAYLCGVKGN FQTIGLSAAA RFNQCNTTRG NEVISVMNRA KKAGKSVG VV TTRRVQHASP AGTYAHTVNR NWYSDADVPA SARQEGCQDI ATQLISNMDI DVILGGGRKY MFRMGTPDPE YPDDYSQGGT RLDGKNLVQE WLAKRQGARY VWNRTLMQA SLDPSVTHLM GLFEPGDMKY EIHRDSTLDP SLMEMTEAAL RLLSRNPRGF FLFVEGGRID HGHESRAYR ALTETIMFDD AIERAGQLTS EEDTSLSVTA DSHVFSFGG YPLRGSSIFG LAPGKARDRK AYTVELLYGNG PGYVLKDGAR PDVTESESGS PEYRQQSAVP LDEETHAGED VAVFARGPQA HLVHGVQEQT FIAHVMAFAA CLEPYTACDL APPAGTTD<HH HHHH>

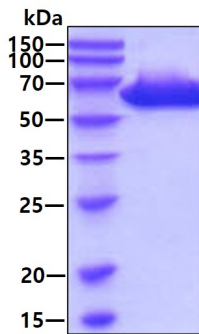
General References

Kozlenkov A., et al. (2002) J Biol Chem. 277(25):22992-22999.

Naka Stec B., et al. (2010) Acta Crystallogr Sect F Struct Biol Cryst Commun. 66(8):866-870.

DATA

SDS-PAGE



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