Product information

Recombinant Human Alkaline Phosphatase/ALPP/ALPI Protein

Cat. No. IBATGP3266

PRODUCT INFORMATION

Expression System
Baculovirus

Domain
23-506aa

UniProt No.
P05187

NCBI Accession No.
AAH09647

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

PRODUCT SPECIFICATION

Molecular Weight
53.9kDa (494aa)
50-70KDa (SDS-PAGE under reducing conditions).

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
< 1.0 EU per 1ug of protein (determined by LAL method)

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

Tag
His-Tag

Applications
Enzyme Activity,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
ALPP, also known as alkaline phosphatase, placental, is a family of dimeric metalloenzymes catalyzing the

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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

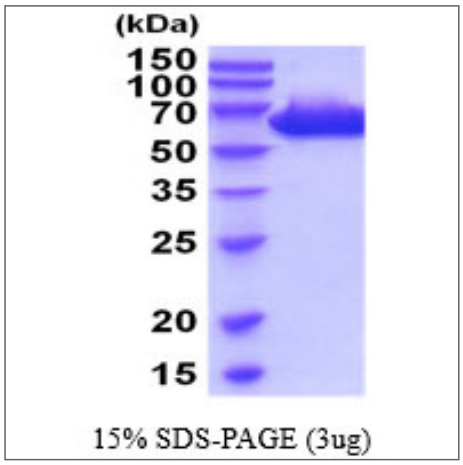
ADLMIIPVEE ENPDFWNREA AEALGAAKKL QPAQTAAKNL IIFLGDGMGV STVTAARILK GQKKDKLGPE LPLAMDRFPY VALSKTYNVD KHVPDSGATA TAYLCGVKGN FQTIGLSAAA RFNQCNTTRG NEVISVMNRA KKAGKSVGVV TTTRVQHASP AGTYAHTVNR NWYSDADVPA SARQEGCQDI ATQLISNMDI DVILGGGRKY MFRMGTPDPE YPDDYSQGGT RLDGKNLVQE WLAKRQGARY VWNRTELMQA SLDPSVTHLM GLFEPGDMKY EIHRDSTLDP SLMEMTEAAL RLLSRNPRGF FLFVEGGRID HGHHESRAYR ALTETIMFDD AIERAGQLTS EEDTLSLVTA DHSHVFSFGG YPLRGSSIFG LAPGKARDRK AYTVLLYGNG PGYVLKDGAR PDVTESESGS PEYRQQSAVP LDEETHAGED VAVFARGPQA HLVHGVQEQT FIAHVMAFAA CLEPYTACDL APPAGTTDHH 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

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