

Recombinant human LMW-PTP/ACP1 protein

Catalog Number: ATGP0280

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-158aa

UniProt No.

P24666

NCBI Accession No.

NP_009030

Alternative Names

Acid phosphatase 1 soluble isoform b, Acid phosphatase 1, soluble isoform b, ACP1, HAAP, LMW-PTP, Red cell acid phosphatase 1, Adipocyte acid phosphatase, Acid phosphatase 1, soluble isoform b Acid phosphatase 1 soluble, Adipocyte acid phosphatase Cytoplasmic phosphotyrosyl protein phosphatase, Low molecular weight phosphotyrosine protein phosphatase, Acid phosphatase of erythrocyte, PAP2, Protein tyrosine phosphatase, PTPase, Purple acid phosphatase, Red cell acid phosphatase 1.

PRODUCT SPECIFICATION

Molecular Weight

20.1 kDa (178aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM MES buffer (pH 6.0) containing 0.1mM PMSF, 2mM EDTA, 10% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

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

Biological Activity

Specific activity is > 15,000unit/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

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.

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BACKGROUND

Description

Acid phosphatase 1, soluble, also known as ACP1, belongs to the phosphotyrosine protein. It functions as an acid phosphatase and a protein tyrosine phosphatase (PTPase) present in all human tissues, including adipocytes. This enzyme hydrolyzes protein tyrosine phosphate to protein tyrosine and orthophosphate, and also orthophosphoric monoesters to alcohol and orthophosphate. Recombinant ACP1, fused to His-tag at N-terminus, was expressed in E. coli and purified by conventional chromatography techniques.

Amino acid Sequence

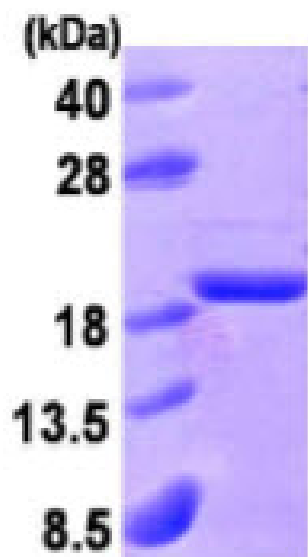
MGSSHHHHHH SSGLVPRGSH MAEQATKSVL FVCLGNICRS PIAEAVFRKL VTDQNIENW VIDSGAVSDW NVGRSPDPRA
VSCLRNHGIH TAHKARQITK EDFATFDYIL CMDESNLRLD NRKSNQVKTC KAKIELLSY DPQKQLIED PYYGNDSDFE
TVYQQCVRCC RAFLEKAH

General References

De Lorenzo A., et al. (2009) Metabolism.58(3):351-4
Banci M., et al. (2009) Cardiology.113(4):236-242.

DATA

SDS-PAGE



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

15% SDS-PAGE (3ug)