# 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_009030.1

**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**
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.

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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

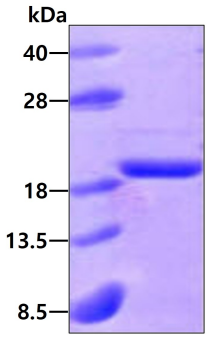
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### General References

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.