# Recombinant Human Prostatic Acid Phosphatase /ACPP Protein

**Catalog No.: RP01976LQ**



## Sequence Information

**Species**
Human

**Gene ID**
55

**Swiss Prot**
P15309

**Tags**
C-6His

**Synonyms**
ACP3, ACPP,Prostatic acid phosphatase, PAP, EC:3.1.3.2, 5'-nucleotidase, 5'-NT, EC:3.1.3.5, Acid phosphatase 3, Ecto-5'-nucleotidase, Protein tyrosine phosphatase ACP3, EC:3.1.3.48, Thiamine monophosphatase, TMPase, Cleaved into: PAPf39

## Product Information

**Source**
HEK293 cells

**Purification**
≥ 95 % as determined by SDS-PAGE.

**Calculated MW**
41.83 KDa

**Observed MW**
45-50 kDa

**Endotoxin**
< 0.01 EU/μg of the protein by LAL method

**Formulation**
0.22 μm filtered solution of 20mM Tris-HCl, 150mM NaCl, pH 7.5.

**Reconstitution**

## Background

Prostatic acid phosphatase (PAP, or ACPP), also known as Prostatic Acid Phosphatase /ACPP is an enzyme produced by the prostate. As a non-specific phosphomonoesterase, Prostatic acid phosphatase is synthesized and secreted into seminal plasma under androgenic control. The enzyme is a dimer of molecular weight around 100 kDa. Prostatic acid phosphatase is a clinically important protein for its relevance as a biomarker of prostate carcinoma. Furthermore, it has a potential role in fertilization. The major action of PAP is to dephosphorylate macromolecules with the help of catalytic residues (His(12) and Asp(258)) that are located in the cleft between two domains. Cellular prostatic acid phosphatase (cPAcP), an authentic tyrosine phosphatase, is proposed to function as a negative growth regulator of prostate cancer (PCa) cells in part through its dephosphorylation of ErbB-2. cPAcP functions as a neutral protein tyrosine phosphatase (PTP) in prostate cancer cells and dephosphorylates HER-2/ErbB-2/Neu (HER-2: human epidermal growth factor receptor-2) at the phosphotyrosine (p-Tyr) residues. Injection of the secretory isoform of PAP has potent antinociceptive effects in mouse models of chronic pain. This enzyme exhibits ecto-5'-nucleotidase activity, is widely distributed, and implicated in the formation of chronic pain. Additionally, PAP could be a target molecule in specific immunotherapy for patients with nonprostate adenocarcinomas including colon and gastric cancers.

## Basic Information

**Description**
Recombinant Human Prostatic Acid Phosphatase /ACPP Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Lys33-Asp386) of Human Prostatic Acid Phosphatase /ACPP (Accession #NP_001090.2) fused with His at the C-terminus.

**Activity**

**Shipping**
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

**Storage**
Store at -70℃

**Operational Notes**
For your safety and health, please wear a lab coat and disposable gloves for handling.

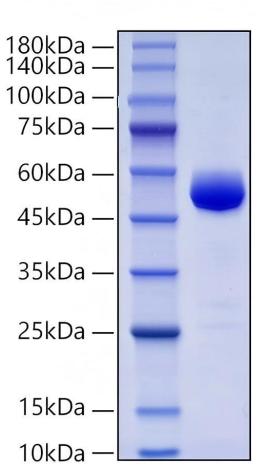
**Contact**

400-999-6126
cn.market@abclonal.com.cn
www.abclonal.com.cn



For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

## Validation Data




Recombinant Human Prostatic Acid Phosphatase /ACPP Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.