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Datasheet for ABIN7194095  
**ACPP Protein (His tag)**

### Overview

Quantity:	20 µg
Target:	ACPP
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This ACPP protein is labelled with His tag.

### Product Details

Purpose:	Recombinant Human Prostatic Acid Phosphatase/ACPP Protein (His Tag)(Active)
Sequence:	Met 1-Lys 382
Characteristics:	A DNA sequence encoding the human ACPP (NP_001127666.1) (Met 1-Lys 382) was fused with a polyhistidine tag at the C-terminus.
Purity:	> 97 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to cleave a substrate, pNitrophenyl phosphate (pNPP). The specific activity is >100,000 pmol/min/µg.

### Target Details

Target:	ACPP
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## Target Details

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Alternative Name: Prostatic Acid Phosphatase/ACPP ([ACPP Products](#))

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Background: Prostatic acid phosphatase (PAP, or ACPP), also known as prostatic specific acid phosphatase (PSAP), is an enzyme produced by the prostate. As a non-specific phosphomonoesterase, Prostatic acid phosphatase 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.

Synonym: Prostatic Acid Phosphatase, PAP, 5'-Nucleotidase, 5'-NT, Ecto-5'-Nucleotidase, Thiamine Monophosphatase, TMPase, ACPP,ACP-3,ACP3

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Molecular Weight: 42 kDa

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NCBI Accession: [NP\\_001127666](#)

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Pathways: [Synaptic Membrane](#), [Ribonucleoside Biosynthetic Process](#)

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## Application Details

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Restrictions: For Research Use only

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## Handling

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Format: Lyophilized

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Reconstitution: Please refer to the printed manual for detailed information.

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Buffer: Lyophilized from sterile PBS, pH 7.4

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Storage: 4 °C,-20 °C,-80 °C

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## Handling

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Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.