

Prostatic acid phosphatase/ACPP Protein, Human (354a.a, HEK293, His, solution)

Cat. No.:	HY-P7817
Synonyms:	rHuProstatic acid phosphatase/ACPP, His; Prostatic Acid Phosphatase; PAP; 5'-Nucleotidase; 5'-NT, Ecto-5'-Nucleotidase; Thiamine Monophosphatase; TMPase; ACPP
Species:	Human
Source:	HEK293
Accession:	AAH16344.1 (K33-D386)
Gene ID:	55
Molecular Weight:	Approximately 50.0 kDa

PROPERTIES

AA Sequence	<pre> K E L K F V T L V F R H G D R S P I D T F P T D P I K E S S W P Q G F G Q L T Q L G M E Q H Y E L G E Y I R K R Y R K F L N E S Y K H E Q V Y I R S T D V D R T L M S A M T N L A A L F P P E G V S I W N P I L L W Q P I P V H T V P L S E D Q L L Y L P F R N C P R F Q E L E S E T L K S E E F Q K R L H P Y K D F I A T L G K L S G L H G Q D L F G I W S K V Y D P L Y C E S V H N F T L P S W A T E D T M T K L R E L S E L S L L S L Y G I H K Q K E K S R L Q G G V L V N E I L N H M K R A T Q I P S Y K K L I M Y S A H D T T V S G L Q M A L D V Y N G L L P P Y A S C H L T E L Y F E K G E Y F V E M Y Y R N E T Q H E P Y P L M L P G C S P S C P L E R F A E L V G P V I P Q D W S T E C M T T N S H Q G T E D S T D </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	PPAP protein (cPacP), a nonspecific tyrosine phosphatase and prostate epithelial differentiation antigen, is involved in regulating prostate epithelial growth. PPAP dephosphorylates a variety of substrates under acidic conditions (pH 4-6) and
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leads to the inactivation of lysophosphatidic acid in seminal plasma. It interacts with and dephosphorylates ErbB-2 primarily at Tyr(1221/2), thereby blocking downstream signaling and resulting in reduced cell growth. It also functions as a negative growth regulator of prostate cancer (PCa) cells in part through dephosphorylation of ErbB-2. The PPAP protein is often used as a biomarker for prostate cancer. Inhibition of prostate cancer development through ERBB2 dephosphorylation and inactivation of MAPK-mediated signaling. Therefore, the occurrence of androgen-independent cell proliferation and tumorigenicity is closely related to the reduction of intracellular PPAP protein expression. Intratumoral injection of a PACP cDNA expression vector inhibits xenograft tumor progression and reduces ErbB-2 tyrosyl phosphate. In prostate cancer and PCa cells with reduced cPACP, reduced cPACP leads to activation of ErbB-2 and ERK1/2 signaling.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA