Prostatic acid phosphatase/ACPP Protein, Human (HEK293, His)

Cat. No.:	HY-P7817A
Synonyms:	Prostatic Acid Phosphatase; PAP; 5'-Nucleotidase; 5'-NT, Ecto-5'-Nucleotidase; Thiamine Monophosphatase; TMPase; ACPP
Species:	Human
Source:	HEK293
Accession:	NP_001127666.1 (K33-K382)
Gene ID:	55
Molecular Weight:	43-55 kDa

PROPERTIES

AA Sequence	MRAAPLLLAR AASLSLGFLF LLFFWLDRSV LAKELKFVTL VFRHGDRSPI DTFPTDPIKE SSWPQGFGQL TQLGMEQHYE LGEYIRKRYR KFLNESYKHE QVYIRSTDVD RTLMSAMTNL AALFPPEGVS IWNPILLWQP IPVHTVPLSE DQLLYLPFRN CPRFQELESE TLKSEEFQKR LHPYKDFIAT LGKLSGLHGQ DLFGIWSKVY DPLYCESVHN FTLPSWATED TMTKLRELSE LSLLSLYGIH KQKEKSRLQG GVLVNEILNH MKRATQIPSY KKLIMYSAHD TTVSGLQMAL DVYNGLLPPY ASCHLTELYF EKGEYFVEMY YRNETQHEPY PLMLPGCSPS CPLERFAELV GPVIPQDWST ECMTTNSHQV LK
Biological Activity	1. Measured by its ability to cleave a substrate, pNitrophenyl phosphate (pNPP). The specific activity is >100,000 pmol/min/μg. 2. Measured by its ability to cleave a substrate, p-Nitrophenyl phosphate (pNPP). which can be measured by absorbance at 410 nm. The specific activity is 4.264×10^7 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder
Formulation	Lyophilized a 0.22 μm filtered solution of 20 mM PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Prostatic acid phosphatase (ACPP) is an enzyme responsible for catalyzing the conversion of orthophosphoric monoester to alcohol and orthophosphate. Synthesized under androgen regulation, ACPP is secreted by the epithelial cells of the prostate gland. An alternatively spliced transcript variant has been identified, encoding a longer isoform with a transmembrane domain that localizes to the plasma membrane-endosomal-lysosomal pathway. The expression of ACPP is notably confined to the prostate, emphasizing its role as a marker associated with this specific tissue.

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