



Rabbit Anti-Mouse Prostatic Acid Phosphatase monoclonal antibody, clone S316 (CABT-ZB1044)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	It reacts with Mouse Prostatic Acid Phosphatase
Target	ACPP
Immunogen	Recombinant Mouse Prostatic Acid Phosphatase/ACPP Protein
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Mouse
Clone	S316
Purification	Protein A purified
Conjugate	Unconjugated
Applications	ELISA(det) We recommend the following for sandwich ELISA (Capture - Detection): CABT-ZB723 - CABT-ZB1044 This antibody will detect Prostatic Acid Phosphatase in antibody pair set. [ABPR-ZB303]
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Mouse Prostatic Acid Phosphatase / ACPP.
Format	Purified, Liquid
Concentration	Lot specific

Size	50 µL, 100 µL, 1 mL
Buffer	PBS
Preservative	None
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Ship	Wet ice

BACKGROUND

Introduction

Prostatic acid phosphatase (PAP, or ACP), also known as prostatic specific acid phosphatase (PSAP), 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 (cPAP), 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. cPAP 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.

Keywords ACP; acid phosphatase, prostate; prostatic acid phosphatase; ACP 3

GENE INFORMATION

Synonyms ACP; acid phosphatase, prostate; prostatic acid phosphatase; ACP 3; ACP3; TMPase; 5-nucleotidase; ecto-5-nucleotidase; thiamine monophosphatase; prostatic acid phosphatase; PAP; 5-NT; ACP-3

Entrez Gene ID [56318](#)

UniProt ID [Q8CE08](#)