

## DM1223

## Monoclonal Antibody to ACP / Prostatic acid phosphatase - Purified

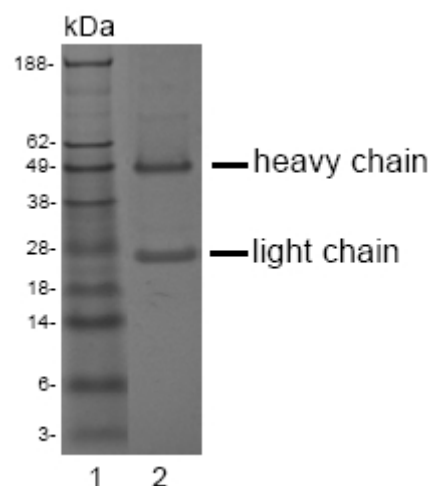
<b>Alternate names:</b>	ACP3, PAP, PSAP, Prostate acid phosphatase
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	2.0 mg/ml
<b>Background:</b>	Human prostatic acid phosphatase (PAP) is a non-specific phosphomonoesterase, synthesised and secreted into seminal plasma under androgenic control. Human PAP is a 100 kDa glycoprotein containing two subunits of approximately 50 kDa each (1,2). It catalyses the dephosphorylation of organic monophosphate esters, demonstrating optimum activity at an acid pH. Produced by the prostatic epithelium, serum levels of PAP are very low in healthy individuals, but are often elevated in malignant and benign prostatic disease while it has been used as a marker of diagnosis and therapy control of cancer of the prostate gland (3).
<b>Uniprot ID:</b>	<a href="#">P15309</a>
<b>NCBI:</b>	<a href="#">NP_001090</a>
<b>GeneID:</b>	<a href="#">55</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Recommended Isotype Controls:</b>	SM10P (for use in human samples), AM03095PU-N
<b>Clone:</b>	LT-3D1
<b>Immunogen:</b>	Genetic immunisation with cDNA encoding Human PAP. <b>Remarks: Selection:</b> Based on recognition of the complete <b>native protein</b> expressed on transfected mammalian cells
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction <b>Purification:</b> Affinity Chromatography on Protein G <b>Buffer System:</b> Phosphate buffered saline, pH 7.2
<b>Applications:</b>	<b>Flow cytometry:</b> 1.2 µg/10e6 cells. <b>Cell based ELISA</b> with intact, transiently transfected cells: 1/200-1/400. <b>ELISA (detection):</b> With clone LT-6C11-A1 as capture antibody. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	Recognizes Prostatic Acid Phosphatase PAP (PAP, ACP).
<b>Species Reactivity:</b>	<b>Tested:</b> Human.
<b>Storage:</b>	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

### General Readings:

1. Ostrowski WS, Kuciel R. Human prostatic acid phosphatase: selected properties and practical applications. Clin Chim Acta. 1994 May;226(2):121-9. PubMed PMID: 7923807.
2. Bilhartz DL, Tindall DJ, Oesterling JE. Prostate-specific antigen and prostatic acid phosphatase: biomolecular and physiologic characteristics. Urology. 1991 Aug;38(2):95-102. PubMed PMID: 1715106.
3. Veeramani S, Yuan TC, Chen SJ, Lin FF, Petersen JE, Shaheduzzaman S, et al. Cellular prostatic acid phosphatase: a protein tyrosine phosphatase involved in androgen-independent proliferation of prostate cancer. Endocr Relat Cancer. 2005 Dec;12(4):805-22. PubMed PMID: 16322323.

### Pictures:

**Figure 2.:** SDS-PAGE analysis of purified LT-3D1 monoclonal antibody. Lane 1: Molecular Weight marker, Lane 2: 2µg of purified LT-3D1 antibody. Proteins were separated by SDS-PAGE and stained with RAPID Stain™ Reagent.



**Figure 1:** FACS analysis of BOSC23 cells using LT-3D1 (Cat.#DM1223). BOSC23 cells were transiently transfected with an expression vector encoding either PAP (Red curve) or an irrelevant protein (Control transfectant: black curve). Binding of LT-3D1 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with PAP transfected cells.

