PRODUCT DATA SHEET
ANTI-HUMAN PROSTATIC ACID PHOSPHATASE (PAP) MONOCLONAL ANTIBODY

PRODUCT INFORMATION

Catalog Number:	GM-0907	**Clone:**	LT-3D1
Description:	purified monoclonal mouse antibody	**Specificity:**	anti-human PAP (PAcP, ACPP)
Isotype:	IgG1/kappa	**Purification:**	Protein G
Storage:	short term: 2°C – 8°C; long term: –20°C (avoid repeated freezing and thawing)	**Buffer:**	phosphate buffered saline, pH 7.2
Immunogen:	genetic immunization with cDNA encoding human PAP	**Selection:**	based on recognition of the complete native protein expressed on transfected mammalian cells

WORKING DILUTIONS

Flow cytometry:	1.2 µg/10^6 cells
CELISA:	1:200 – 1:400
For each application a titration should be performed to determine the optimal concentration.	

SPECIFICITY TESTING BY FLOW CYTOMETRY

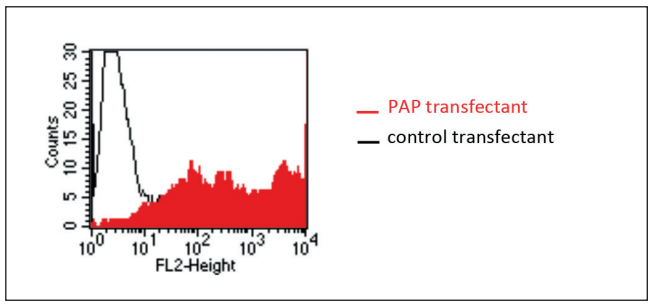

Fig. 1: FACS analysis of BOSC23 cells using LT-3D1 Cat.# GM-0907. BOSC23 cells were transiently transfected with an expression vector encoding either PAP (red curve) or an irrelevant protein (control transfectant: black curve). Binding of LT-3D1 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with PAP transfected cells.

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SDS-PAGE ANALYSIS OF LT-3D1

The antibody was purified by protein G affinity chromatography from cell culture supernatants and verified by SDS-Page (Fig. 2).

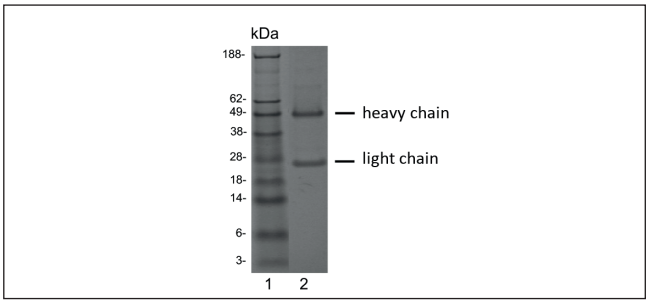

Fig. 2: SDS-PAGE analysis of purified LT-3D1 monoclonal antibody.
Lane 1: molecular weight marker, Lane 2: 2 µg of purified LT-3D1 antibody.
Proteins were separated by SDS-PAGE and stained with RAPID Stain™ Reagent.

BACKGROUND

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).

REFERENCES

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

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