

Product Data Sheet

anti-human Prostate-Specific Antigen (PSA)

monoclonal antibody

Product information

Catalog Number:	GM-0902
Clone:	LT-3D2
Description:	purified monoclonal mouse antibody
Specificity:	anti-human PSA (glandular kallikrein 3)
Isotype:	IgG1
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 immunisation with cDNA encoding human PSA
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

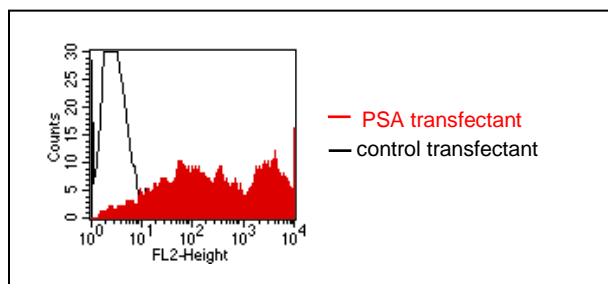


Fig.1: FACS analysis of BOSC23 cells using LT-3D2 Cat.# GM-0902. BOSC23 cells were transiently transfected with an expression vector encoding either PSA (red curve) or an irrelevant protein (control transfectant: black curve). Binding of LT-3D2 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with PSA transfected cells.

For research use only. Not for diagnostic or therapeutic use.

SDS-PAGE analysis of LT-3D2

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

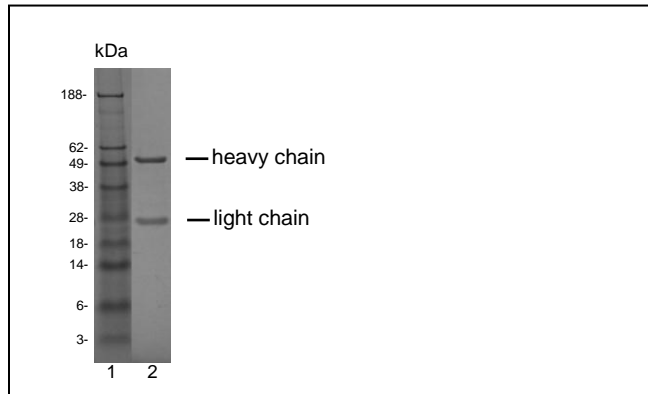


Fig.2: SDS-PAGE analysis of purified LT-3D2 monoclonal antibody. Lane 1: molecular weight marker, Lane 2: 2 µg of purified LT-3D2 antibody. Proteins were separated by SDS-PAGE and stained with RAPID Stain™ Reagent.

Background

Prostate specific antigen (PSA) belongs to the kallikrein gene family. It is a single-chain glycoprotein with a molecular mass of about 33 kD which is produced by prostate epithelial cells. It is secreted in the seminal plasma and is responsible for liquefaction of the seminal coagulum (1,2). PSA is present in small quantities in the serum of healthy males, and is often elevated in the presence of prostate cancer and in other prostate disorders. It is one of the most useful tumour markers because of its tissue specificity. It is thus widely used for screening, diagnosis, and monitoring patients with prostate cancer (3).

References

1. **Steven P Balk, Yoo-Joung Ko, Glenn J Bubley (2003).** Biology of Prostate-Specific Antigen. *Journal of Clinical Oncology* 28 (2): 383-91.
2. **Lilja H (2003).** Biology of Prostate-Specific Antigen. *Urology* 62 (5 Suppl 1): 27-33. PMID 14607215.
3. **Oesterling JE (1991):** Prostate specific antigen: a critical assessment of the most useful tumor marker for adenocarcinoma of the prostate. *J Urol* 145:907-923