**BACKGROUND**

Prostate specific antigen (PSA), also designated γ-seminoprotein, seminin, p30 antigen, semenogelase, and kallikrein 3 (KLK3), was first identified as a glycoprotein in human seminal plasma. PSA was determined by sequence similarity to be a member of the kallikrein subfamily of trypsin proteases. PSA is a serine protease that hydrolyzes the major human seminal protein, the seminal plasma mobility inhibitor precursor, or semenogelin I (SPMIP or SgI), which leads to semen liquefication. PSA production and expression are highest in normal, benign hyperplastic and cancerous tissues of the prostate, although PSA has also been detected in accessory male sex glands and in breast cancer. PSA has been identified as an aid in the early detection of prostate cancer and is a commonly used tumor marker.

**CHROMOSOMAL LOCATION**

Genetic locus: KLK3 (human) mapping to 19q13.33.

**SOURCE**

PSA (A67-B/E3) is a mouse monoclonal antibody raised against amino acids 1-261 representing full length PSA p30 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSA (A67-B/E3) is available conjugated to agarose (sc-7316AC), 500 µg/0.25 ml agarose in 1 ml, for WB, HRP and ELISA; to either phycoerythrin (sc-7316 PE), fluorescein (sc-7316 FITC), Alexa Fluor® 488 (sc-7316 AF488), Alexa Fluor® 546 (sc-7316 AF546), Alexa Fluor® 594 (sc-7316 AF594) or Alexa Fluor® 647 (sc-7316 AF647), 200 µg/ml, for WB (RGB), IF, IHC (P) and FCM; and to either Alexa Fluor® 680 (sc-7316 AF680) or Alexa Fluor® 790 (sc-7316 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

PSA (A67-B/E3) is recommended for detection of PSA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PSA siRNA (h): sc-29458, PSA shRNA Plasmid (h): sc-29458-SH and PSA shRNA (h) Lentiviral Particles: sc-29458-V.

Molecular Weight of PSA: 34 kDa.

Positive Controls: LNCaP cell lysate: sc-2231, COLO 320DM cell lysate: sc-2226 or AT-3 whole cell lysate.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.