

Human PSA ELISA Kit ab264615

重组 SimpleStep ELISA

11 图像

概述

产品名称

检测方法

精确度

人PSA ELISA试剂盒

Colorimetric

批次内

样品	n	Mean	SD	CV%
Urine	8			5.9%

批次间

样品	n	Mean	SD	CV%
Urine	3			8.4%

样品类型

检测类型

灵敏度

范围

回收率

Cell culture supernatant, Urine, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Sandwich (quantitative)

8 pg/ml

39 pg/ml - 2500 pg/ml

特定样本回收率

样品类型	平均%	范围
Cell culture supernatant	92	86% - 97%
Urine	116	112% - 120%
Serum	99	95% - 103%
Hep Plasma	86	85% - 88%
EDTA Plasma	88	80% - 94%
Cit plasma	115	108% - 120%

检测时间 1h 30m

实验步骤 One step assay

种属反应性 与反应: Human

产品概述 Human PSA ELISA Kit (ab264615) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of PSA protein in edta plasma, hep plasma, serum, fetal bovine serum, urine, and cit plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human PSA with 8 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

说明 Prostate specific antigen (PSA) or also commonly termed tissue Kallikrein-3 (KLK3) is a 34 kD serine protease from the Kallikrein family. PSA has very high expression in the prostate gland, but expression also has been reported in the breast and saliva. PSA functions by hydrolyzing semenogelin-1 leading to the liquefaction of the seminal coagulum. This is essential for the proper release of sperm during ejaculation. The majority (>70%) of PSA is known to form a complex with alpha-1-antichymotrypsin (PSA-ACT) in the blood. The remaining PSA exists as an unbound inactive enzyme known as Free PSA. PSA is best characterized as a clinical biomarker for Prostate Cancer. During prostate cancer progression, excess amounts of PSA are leaked into the blood dramatically elevating both Total and Free PSA levels. This assay detects both total and free PSA levels.

平台 Pre-coated microplate (12 x 8 well strips)

性能

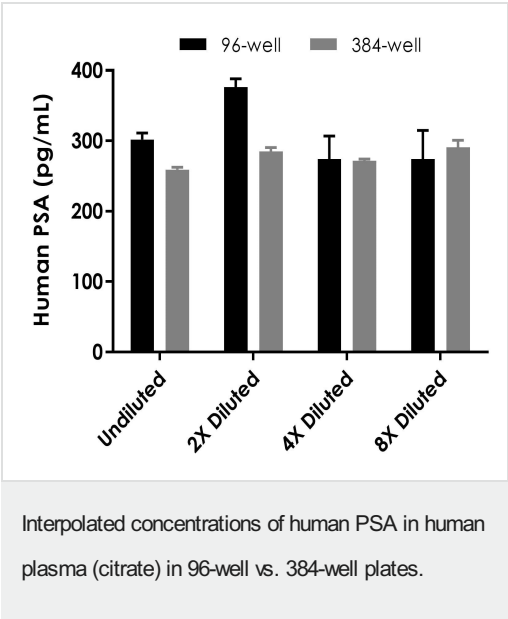
存放说明 Store at +4°C. Please refer to protocols.

组件	1 x 96 tests	10 x 96 tests	1 x 384 tests
10X Human PSA Capture Antibody	1 x 600µl	1 x 6000µl	1 x 600µl
10X Human PSA Detector Antibody	1 x 600µl	1 x 6000µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	0 x 0 unit	1 unit

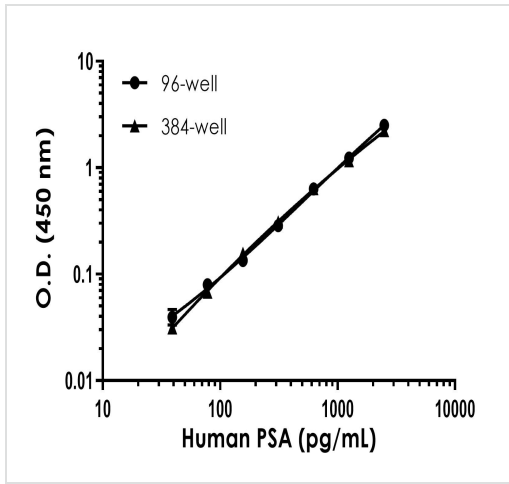
组件	1 x 96 tests	10 x 96 tests	1 x 384 tests
Antibody Diluent 4BI	1 x 6ml	10 x 6ml	1 x 6ml
Human PSA Lyophilized Recombinant Protein	2 vials	2 x 10 vials	2 vials
Plate Seals	1 unit	1 x 10 units	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml	1 x 250ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 x 10 units	0 x 0 unit
Stop Solution	1 x 12ml	1 x 120ml	2 x 12ml
TMB Development Solution	1 x 12ml	1 x 120ml	2 x 12ml

功能	Hydrolyzes semenogelin-1 thus leading to the liquefaction of the seminal coagulum.
序列相似性	Belongs to the peptidase S1 family. Kallikrein subfamily. Contains 1 peptidase S1 domain.
细胞定位	Secreted.

图片

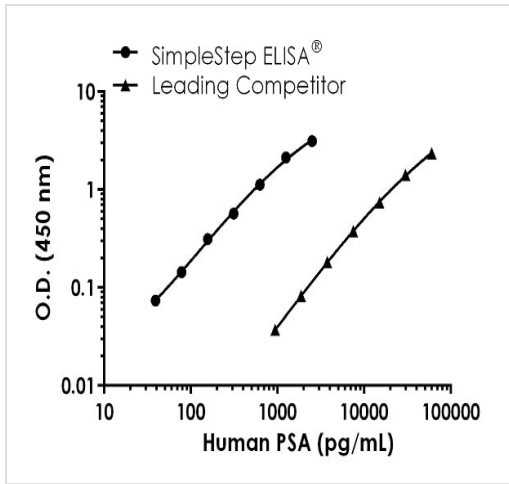


Interpolated concentration of native PSA was measured in duplicate at different sample concentrations in 96-well vs. 384-well plates. Undiluted samples are 100% human plasma (citrate). The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in Sample Diluent NS.



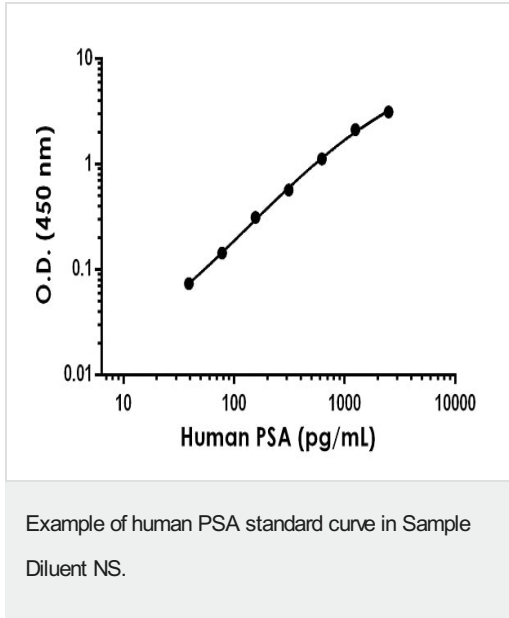
Example of human PSA standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean +/- SD) are graphed.

Example of human PSA standard curve in Sample Diluent NS in 96-well vs. 384-well plate.

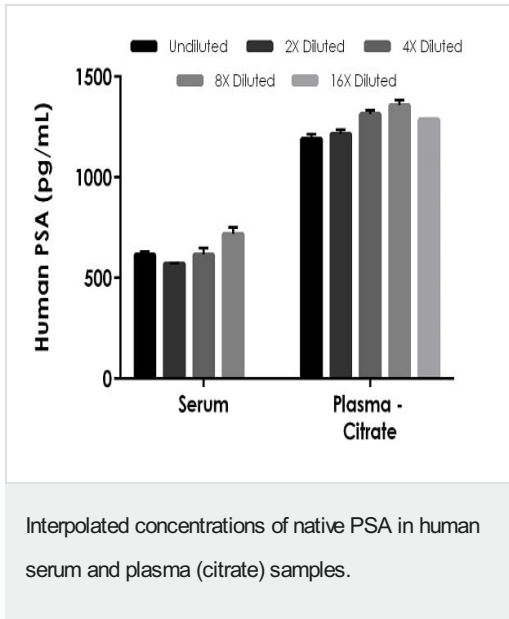


Standard Curve comparison between human PSA SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.

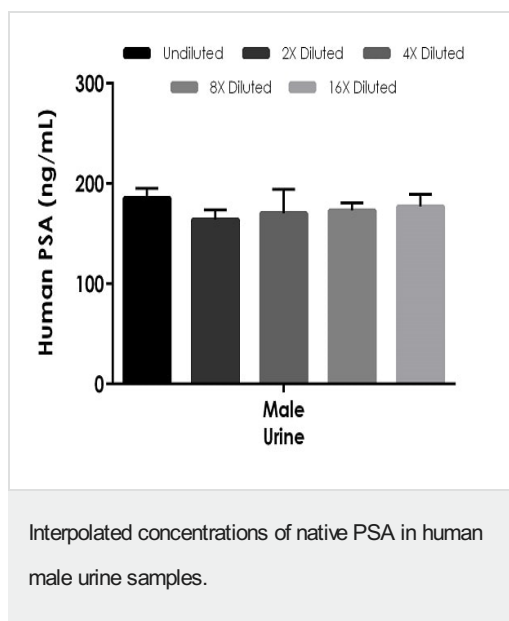
Human PSA standard curve comparison



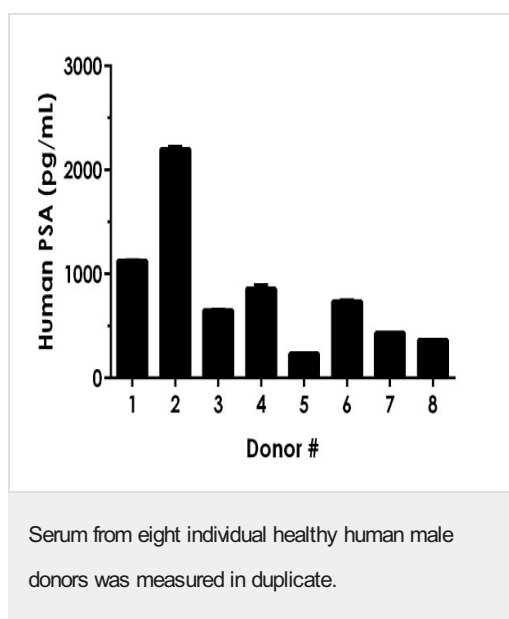
The PSA standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



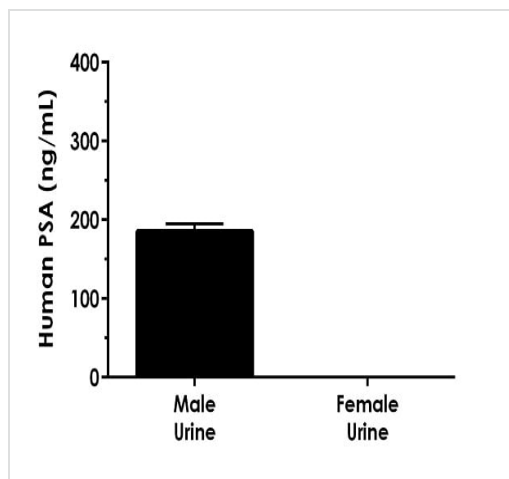
The concentrations of PSA were measured in duplicates, interpolated from the PSA standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100% and plasma (citrate) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PSA concentration was determined to be 630 pg/mL in serum, 1,300 pg/mL in plasma (citrate).



The concentrations of PSA were measured in duplicates, interpolated from the PSA standard curves and corrected for sample dilution. Undiluted samples are as follows: male urine 1:200. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean PSA concentration was determined to be 174 ng/mL in male urine.

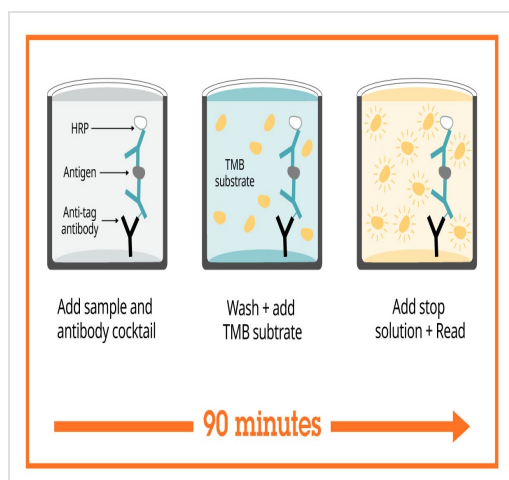


Interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean PSA concentration was determined to be 826 pg/mL with a range of 234 – 2,201 pg/mL.



Urine from both pooled male and female donors was measured in duplicate at 1:200 dilution.

Interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). Female urine was below the lower limit of detection and 174 ng/mL in male urine.



SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Sandwich ELISA - Human PSA ELISA Kit
(ab264615)

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human PSA ELISA Kit
(ab264615)

To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with
SimpleStep ELISA**



Easy to use
Single-wash 90-minute protocol



Flexible
Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Human PSA ELISA Kit
(ab264615)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors