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Datasheet for ABIN6730847

**Total Prostate Specific Antigen (tPSA) IQ-ELISA Kit**

## Overview

Quantity:	96 tests
Target:	Total Prostate Specific Antigen (tPSA)
Reactivity:	Human
Method Type:	DNA-Binding ELISA
Detection Range:	0.16 pg/mL - 2500 pg/mL
Minimum Detection Limit:	0.16 pg/mL
Application:	ELISA

## Product Details

Purpose:	Human Immunoquantitative (PCR-Based) PSA-total ELISA Kit for cell culture supernatants, plasma, and serum samples.
Sample Type:	Cell Culture Supernatant, Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	qPCR
Sensitivity:	0.16 pg/mL
Characteristics:	The Immuno Quantitative Enzyme Linked ImumunoSorbent Assay (IQELISA™) is an innovative new assay that combines the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. This results in an assay that is simultaneously familiar and cutting edge and enables the use of lower sample volumes while also providing more sensitivity. The Human PSA-total IQELISA™ Kit is a modified ELISA assay with high sensitivity qPCR readout for the quantitative measurement of Human PSA-total in serum, plasma, and cell culture supernatants. This assay

## Product Details

employs an antibody specific for Human PSA-total coated on a 96-well PCR plate. Standards and samples are pipetted into the wells and PSA-total present in a sample is bound to the wells by the immobilized antibody. The wells are washed and a detection affinity molecule is added to the plates. After washing away unbound detection affinity molecule, primers and a PCR master mix are added to the wells and data is collected using qPCR. Ct values obtained from the qPCR are then used to calculate the amount of antigen contained in each sample, where lower Ct values indicate a higher concentration of antigen.

### Components:

- PSA-total Microplate (Item A): 96 well PCR plate coated with anti-Human PSA-total
- Wash Buffer I Concentrate (20x) (Item B): 25 ml of 20x concentrated solution
- Standards (Item C): 2 vials of recombinant Human PSA-total
- Assay Diluent A (Item D): 30 ml diluent buffer, 0.09% sodium azide as preservative. For Standard/Sample (serum/plasma) diluent
- Assay Diluent B (Item E): 15 ml of 5x concentrated buffer. For Standard/Sample (cell culture medium/urine) diluent
- Detection Affinity Reagent for PSA-total (Item F): 2 vials of a 4x concentrated solution of anti-Human PSA-total affinity reagent
- IQELISA Detection Reagent (Item G): 1.4ml of a 10x concentrated stock
- Primer Solution (Item I): 1.7 ml vial
- PCR Master Mix (Item J): 1.2 ml vial
- PCR Preparation buffer (Item K): 1 ml vial of 10x concentrated buffer
- Final Wash Buffer (Item L): 10ml vial of 10x concentrated buffer

### Material not included:

- Real-time PCR instrument, Bio-Rad recommended
- Precision pipettes to deliver 2 µL to 1 mL volumes
- Adjustable 1-25 mL pipettes for reagent preparation
- 100 mL and 1 liter graduated cylinders
- Absorbent paper
- Distilled or deionized water
- Log-log graph paper or computer and software for data analysis
- Tubes to prepare standard or sample dilutions
- Heating block or water bath capable of 80°C

## Target Details

Target: Total Prostate Specific Antigen (tPSA)

Alternative Name: PSA-total ([tPSA Products](#))

Gene ID: 354

UniProt: [P07288](#)

## Application Details

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**Application Notes:** The Immuno-Quantitative ELISA (IQELISA) kits are an innovative assay platform that combines the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. This results in an assay that is simultaneously familiar and cutting edge and enables the use of only 1/10th the sample volume while also providing 10x more sensitivity than a traditional ELISA.

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**Comment:** **Features:**

- Excellent for follow up/confirmation of antibody array data
- Pre-coated 96 well plate
- Strip plate format minimizes waste
- Complete kit includes all necessary reagents
- 10x more sensitive than ELISA
- Reproducible and reliable
- Optimized for serum, plasma, urine and cell culture medium
- 1/10th the sample volume of an ELISA

**Research Applications:**

- Detection of quantitative protein levels in biological fluids
  - Validation of antibody array results
  - Validation of biomarker discovery studies
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**Plate:** Pre-coated

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**Protocol:**

1. Prepare all reagents, samples and standards as instructed
2. Add 25 µL standard or sample to each well. Incubate for 2.5 hours at room temperature or overnight at 4°C
3. Add 25 µL detection affinity reagent to each well. Incubate 1 hour at room temperature
4. Add 25µL of IQELISA Detection Reagent to each well. Incubate 1 hour
5. Add 15µL Primer solution 10µL of PCR master mix to each well
6. Run real-time PCR

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**Reagent Preparation:** Recommended Dilution for serum and plasma samples: 2 - 10 fold

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**Restrictions:** For Research Use only

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## Handling

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**Storage Comment:** May be stored for up to 6 months at 2° to 8°C from the date of shipment. Standard (recombinant protein) should be stored at -20°C or -80°C (recommended at -80°C) after reconstitution. Opened PCR plate or reagents may be stored for up to 1 month at 2°C to 8°C.

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**Expiry Date:** 6 months

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