PicoKine™ ELISA

Catalog number: EK7080

For the quantitation of **Human KLK3** concentrations in Serum and Plasma

This package insert must be read in its entirety before using this product. For research use only. Not for use in diagnostic procedures.

BOSTER
antibody and ELISA experts

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Human Prostate Specific Antigen (PSA) OneStep ELISA Kit

Catalog Number:EK7080

Introduction

The Bosterbio OneStep ELISA kit is a solid phase direct ELISA sandwich kit. Instead of adding samples detection antibody and ABC-HRP separately, The OneStep ELISA kit allows the user to add standards, samples and controls to wells in one step, along with the incubation buffer. After a simple washing step, an enzyme conjugate reagent is added into each well. After the excess enzyme conjugate is washed out, the substrate is added into each well. The enzyme catalyzes the substrate yielding a blue color (Amax = 370nm and 652nm) that changes to yellow (Amax = 450nm) upon addition of a sulfuric or phosphoric acid stop solution. The intensity of color developed is directly proportional to the concentration of target protein in the samples. A standard curve is generated relating color intensity to the concentration of target protein.

Overview

Product Name	Human Prostate Specific Antigen (PSA) OneStep ELISA Kit
Reactive Species	Human
Size	96wells/kit, with removable strips.
Description	Human Prostate Specific Antigen (PSA) OneStep ELISA Kit, tested with Serum and Plasma. Format: 96wells/kit, with removable strips.
Sensitivity	2 ng/ml *The sensitivity or the minimum detectable dose (MDD) is the lower limit of target protein that can be detected by the kit. It is determined by adding two standard deviations to the mean O.D. value of twenty (20) blank wells and calculating the corresponding concentration.
Detection Range	2-50 ng/ml
Storage Instructions	Store the kit at 2°C to 8°C. Keep microwells sealed in a dry bag with desiccants. The reagents are stable until expiration of the kit. Do not expose reagent to heat, sun, or strong light. Avoid multiple freeze-thaw cycles(Shipped with wet ice.)
Uniprot ID	P07288
Specificity	Natural and recombinant Human KLK3
Cross Reactivity	There is no detectable cross-reactivity.

Kit Components/Materials Provided

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Description	Quantity
1. Microwells coated with Streptavidin	12x8x1
2. PSA Standard: 6 vials (ready to use)	0.5ml
3. Anti-PSA Conjugate Reagent: 1 bottle (ready to use)	12 ml
4. TMB Substrate: 1 bottle (ready to use)	12ml
5. Stop Solution: 1 bottle (ready to use)	12ml
6. 20X Wash concentrate: 1 bottle	25ml

Required Materials That Are Not Supplied

1. Distilled or deionized water

2. Precision pipettes

3. Disposable pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection.

4. ELISA reader capable of reading absorbance at 450nm

5. Absorbance paper or paper towel

6. Graph paper

WARNINGS AND PRECAUTIONS

1. For Research Use Only. Not for use in diagnostic procedures.
2. For laboratory use.
3. Potential biohazardous materials: The calibrator and controls contain human source components which have been tested and found non-reactive for hepatitis B surface antigen as well as HIV antibody with FDA licensed reagents. However, as there is no test method that can offer complete assurance that HIV, Hepatitis B virus or other infectious agents are absent, these reagents should be handled at the Biosafety Level 2, as recommended in the Centers for Disease Control/National Institutes of Health manual, "Biosafety in Microbiological and Biomedical Laboratories." 1984
4. Do not pipette by mouth. Do not smoke, eat, or drink in the areas in which specimens or kit reagents are handled.
5. The components in this kit are intended for use as an integral unit. The components of different lots should not be mixed.
6. It is recommended that serum samples be run in duplicate.
7. Optimal results will be obtained by strict adherence to this protocol. Accurate and precise pipetting, as well as following the exact time and temperature requirements prescribed are essential. Any deviation from this may yield invalid data.

SPECIMEN COLLECTION AND HANDLING

1. Collect blood specimens and separate the serum immediately.
2. Typically, specimens may be stored refrigerated at (2-8°C) for 5 days. If storage time exceeds 5 days, store frozen at (-20. C) for up to one

month.
3. Avoid multiple freeze-thaw cycles.
4. Prior to assay, frozen sera should be completely thawed and mixed well.
5. Do not use grossly lipemic specimens.

REAGENT PREPARATION

Prepare 1X Wash buffer by adding the contents of the bottle (25 ml, 20X) to 475 ml of distilled or deionized water. Store at room temperature (20-25°C).

ASSAY PROCEDURE

Prior to assay, allow reagents to stand at room temperature. Gently mix all reagents before use.
1. Place the desired number of coated strips into the holder
2. Pipette 25ul of PSA standards, control and patient's sera.
3. Add 100ul of the Anti-PSA conjugate reagent into all wells. Shake the plate for (10-30) sec.
4. Cover the plate and incubate for 60 minutes at room temperature (20-25°C).
5. Remove liquid from all wells. Wash wells three times with 300ul of 1X wash buffer. Blot on absorbance paper or paper towel.
6. Add 100ul of TMB substrate into all wells.
7. Incubate for 15 minutes at room temperature.
8. Add 50ul of stop solution into all wells. Shake the plate gently to mix the solution.
9. Read absorbance on ELISA Reader at 450 nm within 15 minutes after adding the stopping solution.

CALCULATION OF RESULTS

2. Follow The Same Assay Procedure For Serum/Plasma Test From Step 2 To Step 18.
1. Check PSA standard value on each standard vial. This value might vary from lot to lot. Make sure you check the value on every kit. See example of the standard attached. in ng/ml from the standard curve. concentration in ng/ml (horizontal axis) on a linear graph paper. Draw the best curve through the points.
3. Use the absorbance for controls and each unknown sample to determine the corresponding CA19-9 in U/ml from the standard curve.

LIMITATION OF THE TEST

1. Do not use sodium azide as preservative. Sodium azide inhibits HRP enzyme activities.