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Datasheet for ABIN3044694  
**alpha Fetoprotein ELISA Kit**

1 Image

Overview

Quantity:	96 tests
Target:	alpha Fetoprotein (AFP)
Binding Specificity:	AA 19-609
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	78-5000 pg/mL
Minimum Detection Limit:	78 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human AFP
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Immunogen sequence: R19-V609
Specificity:	Expression system for standard: NSO Immunogen sequence: R19-V609
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

## Product Details

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Material not included: Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

## Target Details

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Target: alpha Fetoprotein (AFP)

Alternative Name: AFP ([AFP Products](#))

Background: Protein Function: Binds copper, nickel, and fatty acids as well as, and bilirubin less well than, serum albumin. Only a small percentage (less than 2 %) of the human AFP shows estrogen-binding properties.

Background: Alpha-fetoprotein (AFP,  $\alpha$ -fetoprotein, also sometimes called alpha-1-fetoprotein, alpha-fetoglobulin, or alpha fetal protein) is a protein that in humans is encoded by the AFP gene. The AFP gene is located on the q arm of chromosome 4 (4q25). AFP is the most abundant plasma protein found in the human fetus. Plasma levels decrease rapidly after birth but begin decreasing prenatally starting at the end of the first trimester. Normal adult levels are usually achieved by the age of 8 to 12 months. The function of AFP in adult humans is unknown, however, in rodents it binds estradiol to prevent the transport of this hormone across the placenta to the fetus. The main function of this is to prevent the virilization of female fetuses. As human AFP does not bind estrogen, its function in humans is less clear.

Synonyms: Alpha-fetoprotein, Alpha-1-fetoprotein, Alpha-fetoglobulin, AFP, HPAFP,

Full Gene Name: Alpha-fetoprotein

Cellular Localisation: Secreted.

Gene ID: 174

UniProt: [P02771](#)

Pathways: [C21-Steroid Hormone Metabolic Process](#)

## Application Details

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Application Notes: Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Comment: Tissue Specificity: Plasma. Synthesized by the fetal liver and yolk sac.

Plate: Pre-coated

## Application Details

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**Protocol:** human AFP ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for AFP has been precoated onto 96-well plates. Standards (Expression system for standard: NSO, Immunogen sequence: R19-V609) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for AFP is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human AFP amount of sample captured in plate.

**Assay Procedure:** Aliquot 0.1 mL per well of 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 313pg/mL, 156pg/mL, 78pg/mL human AFP standard solutions into the pre-coated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma( heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human AFP standard solution and each sample is measured in duplicate.

**Restrictions:** For Research Use only

## Handling

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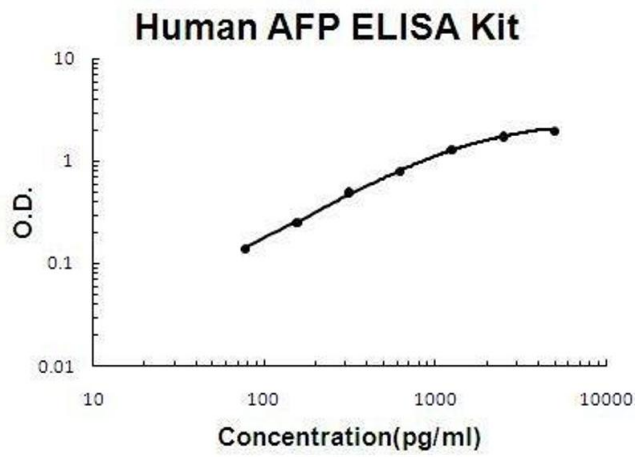
**Buffer:** heparin or EDTA

**Handling Advice:** Avoid multiple freeze-thaw cycles.

**Storage:** 4 °C, -20 °C

**Storage Comment:** Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

**Expiry Date:** 12 months



#### ELISA

**Image 1.** Human AFP PicoKine ELISA Kit standard curve