

Alpha Fetoprotein ELISA Kit | AFP elisa kit

Alpha Fetoprotein (AFP)

CATALOG #
AAA14618

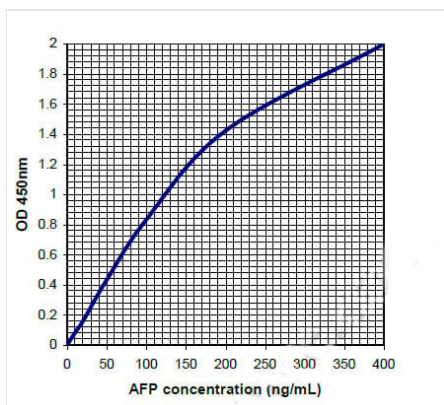
PRODUCT SYNONYMS

Alpha Fetoprotein; Alpha Fetoprotein (AFP); AFP elisa kit

PRODUCT SPECIFICATIONS

Specificity	This kit exhibits no detectable cross-reactivity with CEA, PSA, HCG, CA125, CA153, and human serum albumin.
Sequence Length	609
Assay Type	Quantitative Sandwich
Intra-assay Precision	To determine within-run precision, three different samples of known concentration were assayed by using 15 replicates in 1 assay.
Inter-assay Precision	To determine between-run precision, three different samples of known concentration were assayed by replicates on 15 different assays.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for AFP elisa kit	Background: Alpha-fetoprotein (AFP) is a glycoprotein with a molecular mass of 65,000 Daltons. It is normally produced in large amounts by liver, the visceral endoderm of foetus. Alpha-fetoprotein level increases progressively and reaches a peak at the 30th week in the maternal serum. Thereafter, it decreases gradually and reduces to trace amount with a couple of years after birth. Human AFP gene is located at the chromosomal location 4q25. The expression of AFP is regulated by a large promoter P1 and three distant enhancers. AFP expression abnormality is a relatively common genetic disorder that affects intellectual development and causes other health problems. Increased AFP expression is observed in adults that developed metastasis of liver and other organs. AFP is thought to be a foetal form of serum albumin and exists in monomeric, dimeric and trimeric forms. It binds to copper, nickel, fatty acids and bilirubin. The exact function of human AFP is still under investigation. Several hypotheses have been proposed for the physiological function: regulation of cell growth, sexual differentiation, transportation of metals and other substances, interaction with cytoplasmic chaperone proteins, and protecting foetus against the maternal immunity. To cover the very large range of concentration associated with the great variety of processes, the current immunoassay is a simple tool for the detection of AFP in the range 0 - 400ng/ml. Principle of the Assay: This AFP enzyme-linked immunosorbent assay (ELISA) applies a technique called quantitative sandwich immunoassay. The microtiter plate provided in this kit has been pre-coated with a monoclonal antibody specific for AFP. Standards or samples are then added to the appropriate microtiter plate wells and incubated. AFP if present, will bind and become immobilized by the antibody pre-coated on the wells. The microtiter plate wells are thoroughly washed to remove any unbound AFP and other components of sample. In order to quantitate the amount of AFP present in the sample, a standardized preparation of horseradish peroxidase (HRP)-conjugated monoclonal antibody specific for AFP is added to each well to "sandwich" the AFP immobilized during the first incubation. The microtiter plate then undergoes a second incubation. The wells are thoroughly washed to remove all unbound HRP-conjugated antibodies and a TMB (3,3',5,5' tetramethyl-benzidine) substrate solution is added to each well. Only those wells that contain AFP and enzyme-substrate reaction will exhibit a change in colour. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the colour change measured spectrophotometrically at a wavelength of 450 nm ± 2 nm. In order to measure the concentration of AFP in the samples, this kit includes a set standard. This allows the operator to produce a standard curve of Optical Density (O.D) versus AFP (ng/mL). The concentration of AFP in the samples is then determined by comparing the O.D. of the samples to the standard curve. Intended Uses: This AFP ELISA Kit is to be used for the in vitro quantitative determination of alpha-fetoprotein in human blood samples and cell culture supernatant.
Product Categories/Family for AFP elisa kit	ELISA Kits for Human Tumor Markers

NCBI AND UNIPROT INFORMATION

NCBI GI #	178236
NCBI GeneID	174
Molecular Weight	68,678 Da
NCBI Official Full Name	alpha-fetoprotein
NCBI Official Synonym Full Names	alpha-fetoprotein
NCBI Official Symbol	AFP
NCBI Official Synonym Symbols	AFPD; FETA; HPAFP
NCBI Protein Information	alpha-fetoprotein; alpha-1-fetoprotein; alpha-fetoglobulin
UniProt Protein Name	Alpha-fetoprotein
UniProt Gene Name	AFP
UniProt Entry Name	FETA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

