

## Product datasheet

# Mouse alpha Fetoprotein ELISA Kit ab210969

Recombinant SimpleStep ELISA

[6 Images](#)

### Overview

**Product name** Mouse alpha Fetoprotein ELISA Kit

**Detection method** Colorimetric

#### Precision

Intra-assay

Sample	n	Mean	SD	CV%
serum	5			3%

Inter-assay

Sample	n	Mean	SD	CV%
serum	3			1.6%

**Sample type** Cell culture supernatant, Urine, Serum, Plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** 287 pg/ml

**Range** 0.94 ng/ml - 60 ng/ml

#### Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	99	98% - 101%
Urine	99	96% - 101%
Serum	120	117% - 123%
Hep Plasma	119	116% - 125%
EDTA Plasma	102	98% - 108%
Cit plasma	110	108% - 113%

<b>Assay time</b>	1h 30m
<b>Assay duration</b>	One step assay
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse <b>Does not react with:</b> Cow
<b>Product overview</b>	Mouse alpha Fetoprotein ELISA Kit (ab210969) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of alpha Fetoprotein protein in cell culture supernatant, plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse alpha Fetoprotein with 287 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.

<b>Notes</b>	Alpha fetoprotein is a secreted single chain glycoprotein expressed normally during fetal development as well as by liver pathologies, including cancer. It is a member of the albuminoid superfamily and may act as a carrier protein. Pregnant mice may have elevated alpha -fetoprotein levels derived from fetal circulation; male and female adults have low levels of circulating alpha -fetoprotein
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<b>Platform</b>	Pre-coated microplate (12 x 8 well strips)
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## Properties

<b>Storage instructions</b>	Store at +4°C. Please refer to protocols.
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Components	1 x 96 tests
10X Mouse alpha Fetoprotein Capture Antibody	1 x 600µl
10X Mouse alpha Fetoprotein Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BI	1 x 6ml
Mouse alpha Fetoprotein Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

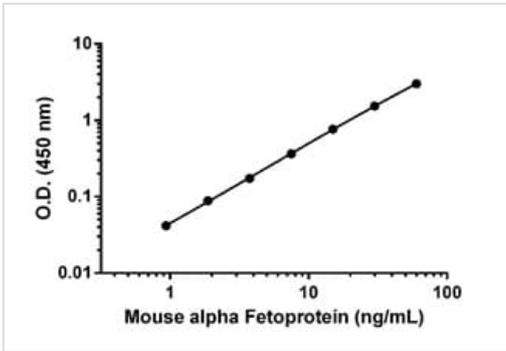
Components	1 x 96 tests
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

<b>Function</b>	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.
<b>Tissue specificity</b>	Plasma. Synthesized by the fetal liver and yolk sac.
<b>Sequence similarities</b>	Belongs to the ALB/AFP/VDB family. Contains 3 albumin domains.
<b>Developmental stage</b>	Occurs in the plasma of fetuses more than 4 weeks old, reaches the highest levels during the 12th-16th week of gestation, and drops to trace amounts after birth. The serum level in adults is usually less than 40 ng/ml. AFP occurs also at high levels in the plasma and ascitic fluid of adults with hepatoma.
<b>Post-translational modifications</b>	Independent studies suggest heterogeneity of the N-terminal sequence of the mature protein and of the cleavage site of the signal sequence. Sulfated.
<b>Cellular localization</b>	Secreted.

## Images

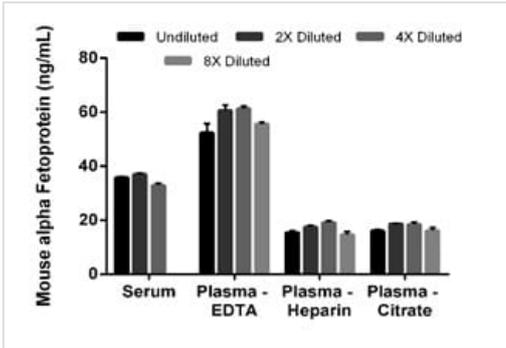


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



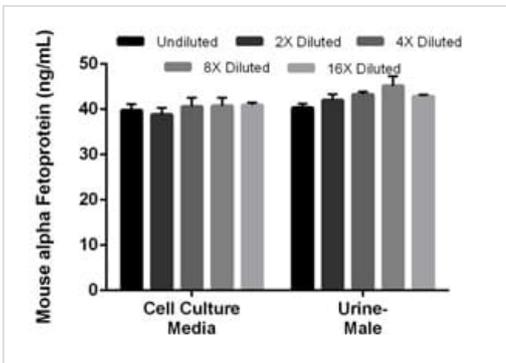
Example of mouse alpha Fetoprotein standard curve.

Background-subtracted data values (mean +/- SD) are graphed.



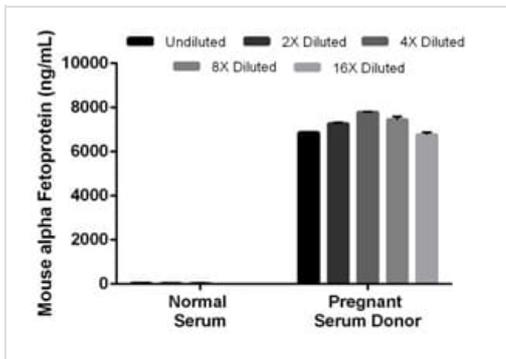
Interpolated concentrations of native alpha Fetoprotein in mouse serum and plasma samples.

The concentrations of alpha Fetoprotein were measured in duplicates, interpolated from the alpha Fetoprotein standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (EDTA) 50%, plasma (heparin) 50%, and plasma (citrate) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean alpha Fetoprotein concentration was determined to be 35.2 ng/mL in serum, 57.4 ng/mL in plasma (EDTA), 16.6 ng/mL in plasma (heparin), and 17.3 ng/mL in plasma (citrate).



Interpolated concentrations of spike alpha Fetoprotein in mouse cell culture supernatant and urine samples.

The concentrations of alpha Fetoprotein were measured in duplicates, interpolated from the alpha Fetoprotein standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture supernatant 50% and urine 12.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



Interpolated concentrations of native alpha Fetoprotein in mouse serum samples.

The concentrations of alpha Fetoprotein were measured in duplicates, interpolated from the alpha Fetoprotein standard curves and corrected for sample dilution. Undiluted samples are as follows: normal serum 50% and pregnant serum 1:200. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean alpha Fetoprotein concentration was determined to be 35.2 ng/mL in normal serum and 7226 ng/mL in pregnant mouse serum.

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Consistent and reproducible results
- Long-term and scalable supply**  
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Sandwich ELISA - Mouse alpha Fetoprotein ELISA Kit (ab210969)

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

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