**Product name**
Human alpha Fetoprotein ELISA Kit (AFP)

**Detection method**
Colorimetric

**Precision**

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td>4.5%</td>
</tr>
</tbody>
</table>

**Inter-assay**

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
</tbody>
</table>

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

**Assay type**
Sandwich (quantitative)

**Sensitivity**
= 0.5 ng/ml

**Range**
0.313 ng/ml - 20 ng/ml

**Recovery**
97%

**Assay time**
4h 0m

**Assay duration**
Multiple steps standard assay

**Species reactivity**
Reacts with: Human

**Product overview**
Abcam’s alpha Fetoprotein (AFP) Human *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of alpha Fetoprotein levels in plasma, serum and cell culture supernatants.

An alpha Fetoprotein specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently an alpha Fetoprotein specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Complex is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of alpha Fetoprotein captured in plate.
The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

**Tested applications**

Suitable for: Sandwich ELISA

**Platform**

Microplate

**Properties**

**Storage instructions**

Store at -20°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>1 x 96 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>100X Streptavidin-Peroxidase Conjugate</td>
<td>1 x 80µl</td>
</tr>
<tr>
<td>10X Diluent N Concentrate</td>
<td>1 x 30ml</td>
</tr>
<tr>
<td>20X Wash Buffer Concentrate</td>
<td>2 x 30ml</td>
</tr>
<tr>
<td>50X Biotinylated Human alpha Fetoprotein Antibody</td>
<td>1 x 120µl</td>
</tr>
<tr>
<td>alpha Fetoprotein Microplate (12 x 8 well strips)</td>
<td>1 unit</td>
</tr>
<tr>
<td>alpha Fetoprotein Standard</td>
<td>1 vial</td>
</tr>
<tr>
<td>Chromogen Substrate</td>
<td>1 x 8ml</td>
</tr>
<tr>
<td>Sealing Tapes</td>
<td>3 units</td>
</tr>
<tr>
<td>Stop Solution</td>
<td>1 x 12ml</td>
</tr>
</tbody>
</table>

**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.

**Tissue specificity**

Plasma. Synthesized by the fetal liver and yolk sac.

**Sequence similarities**

Belongs to the ALB/AFP/VDB family.
Contains 3 albumin domains.

**Developmental stage**

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.

**Post-translational modifications**

Independent studies suggest heterogeneity of the N-terminal sequence of the mature protein and of the cleavage site of the signal sequence.
Sulfated.

**Cellular localization**

Secreted.

**Applications**

Our Abpromise guarantee covers the use of ab108838 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich ELISA</td>
<td>Use at an assay dependent concentration.</td>
<td></td>
</tr>
</tbody>
</table>

Images

Representative Standard Curve using ab108838.

Typical Standard Curve

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

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