**Overview**

**Product name**
Human Carcino Embryonic Antigen ELISA Kit (CEA) ab99992

**Detection method**
Colorimetric

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

**Assay type**
Sandwich (quantitative)

**Sensitivity**
< 0.2 ng/ml

**Range**
0.343 ng/ml - 250 ng/ml

**Recovery**
> 100%

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell culture supernatant</td>
<td>116.7</td>
<td>93% - 136%</td>
</tr>
<tr>
<td>Serum</td>
<td>145.6</td>
<td>135% - 156%</td>
</tr>
<tr>
<td>Plasma</td>
<td>103.8</td>
<td>82% - 124%</td>
</tr>
</tbody>
</table>

**Assay duration**
Multiple steps standard assay

**Species reactivity**
Reacts with: Human

**Product overview**

Abcam’s Carcinoembryonic Antigen (CEA) Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human CEA in serum, plasma, and cell culture supernatants.

This assay employs an antibody specific for Human CEA coated on a 96-well plate. Standards and samples are pipetted into the wells and CEA present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human CEA antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of CEA bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Get results in 90 minutes with Human Carcinoembryonic Antigen ELISA Kit (CD66e) (ab183365)
from our SimpleStep ELISA® range.

Notes
Optimization may be required with urine samples.

Tested applications
Suitable for: Sandwich ELISA

Platform
Microplate

Properties

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

Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000X HRP-Streptavidin Concentrate</td>
<td>1 x 200µl</td>
</tr>
<tr>
<td>20X Wash Buffer Concentrate</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>5X Assay Diluent B</td>
<td>1 x 15ml</td>
</tr>
<tr>
<td>Assay Diluent A</td>
<td>1 x 30ml</td>
</tr>
<tr>
<td>Biotinylated anti-Human CEA (lyophilized)</td>
<td>2 vials</td>
</tr>
<tr>
<td>CEA Microplate (12 x 8 well strips)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Recombinant Human CEA Standard (lyophilized)</td>
<td>2 vials</td>
</tr>
<tr>
<td>Stop Solution</td>
<td>1 x 8ml</td>
</tr>
<tr>
<td>TMB One-Step Substrate Reagent</td>
<td>1 x 12ml</td>
</tr>
</tbody>
</table>

Relevance
Carcino Embryonic Antigen (CEA) is synthesised during development in the fetal gut, and is re-expressed in increased amounts in intestinal carcinomas and several other tumors. Antibodies to CEA are useful in identifying the origin of various metastatic adenocarcinomas and in distinguishing pulmonary adenocarcinomas (60 to 70% are CEA+) from pleural mesotheliomas (rarely or weakly CEA+).

Cellular localization
Cell Membrane

Applications

Our Abpromise guarantee covers the use of ab99992 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></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

Images
Covers the measurement of CEA in biological fluids. The CEA is measured in ng/mL of the tested sample.

**Typical Standard Curve**

A representative standard curve using ab99992 is shown.

**Representative Standard Curve using ab99992.**

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

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