**Overview**

**Product name**  
Human Retinol binding protein ELISA Kit (RBP)

**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>Intra-assay</td>
<td></td>
<td></td>
<td></td>
<td>5.1%</td>
</tr>
<tr>
<td>Inter-assay</td>
<td></td>
<td></td>
<td></td>
<td>10.1%</td>
</tr>
</tbody>
</table>

**Sample type**  
Serum, Plasma, Cell Lysate

**Assay type**  
Competitive

**Sensitivity**  
0.17 µg/ml

**Range**  
0.195 µg/ml - 50 µg/ml

**Recovery**  
98%

**Assay time**  
3h 00m

**Assay duration**  
Multiple steps standard assay

**Species reactivity**  
Reacts with: Human

**Product overview**

Abcam’s Retinol Binding Protein (RBP) Human *in vitro* competitive ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of RBP in plasma and serum.

A Retinol Binding Protein specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently biotinylated Retinol Binding Protein 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 inversely proportional to the amount of Retinol Binding
Protein captured in plate.

The immunogen for the RBP-capture antibody is total RBP and thus the capture antibody should
detect both RBP1 and RPB4, among others.

**Tested applications**

Suitable for: Competitive ELISA

**Platform**

Microplate

**Properties**

**Storage instructions**

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Quantity</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>1 x 30ml</td>
</tr>
<tr>
<td>Biotinylated Retinol Binding Protein (Lyophilized)</td>
<td>1 vial</td>
</tr>
<tr>
<td>Chromogen Substrate</td>
<td>1 x 8ml</td>
</tr>
<tr>
<td>Retinol Binding Protein Microplate (12 x 8 well strips)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Retinol Binding Protein Standard</td>
<td>1 vial</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**

Intracellular transport of retinol.

**Tissue specificity**

Detected in nearly all the tissues with higher expression in adult ovary, pancreas, pituitary gland and adrenal gland, and fetal liver.

**Sequence similarities**

Belongs to the calycin superfamily. Fatty-acid binding protein (FABP) family.

**Domain**

Forms a beta-barrel structure that accommodates hydrophobic ligands in its interior.

**Cellular localization**

Cytoplasm.

**Applications**

Our Abpromise guarantee covers the use of ab137991 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>Competitive ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>
Representative Standard Curve using ab137991.

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