Product Overview

**Product name**
Human Haptoglobin ELISA Kit

**Detection method**
Colorimetric

**Precision**

<table>
<thead>
<tr>
<th>Intra-assay</th>
<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></td>
<td>4.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inter-assay</th>
<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></td>
<td>7.2%</td>
</tr>
</tbody>
</table>

**Sample type**
Serum, Plasma

**Assay type**
Competitive

**Sensitivity**
= 0.07 µg/ml

**Range**
0.078 µg/ml - 20 µg/ml

**Recovery**
= 98%

**Assay time**
2h 00m

**Assay duration**
Multiple steps standard assay

**Species reactivity**
Reacts with: Human

**Product overview**

Human Haptoglobin in vitro competitive ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Haptoglobin in plasma and serum.

A Haptoglobin specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently biotinylated Haptoglobin 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 Haptoglobin captured in plate.
The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

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>1 x 30ml</td>
</tr>
<tr>
<td>1X Biotinylated Human Haptoglobin (Lyophilized)</td>
<td></td>
</tr>
<tr>
<td>Chromogen Substrate</td>
<td>1 x 8ml</td>
</tr>
<tr>
<td>Haptoglobin Microplate (12 x 8 well strips)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Haptoglobin 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
Haptoglobin combines with free plasma hemoglobin, preventing loss of iron through the kidneys and protecting the kidneys from damage by hemoglobin, while making the hemoglobin accessible to degradative enzymes. Uncleaved haptoglobin, also known as zonulin, plays a role in intestinal permeability, allowing intercellular tight junction disassembly, and controlling the equilibrium between tolerance and immunity to non-self antigens.

Tissue specificity
Expressed by the liver and secreted in plasma.

Involvement in disease
Defects in HP are the cause of anhaptoglobinemia (AHP) [MIM:614081]. AHP is a condition characterized by the absence of the serum glycoprotein haptoglobin. Serum levels of haptoglobin vary among normal persons: levels are low in the neonatal period and in the elderly, differ by population, and can be influenced by environmental factors, such as infection. Secondary hypohaptoglobinemia can occur as a consequence of hemolysis, during which haptoglobin binds to free hemoglobin.

Sequence similarities
Belongs to the peptidase S1 family.
Contains 1 peptidase S1 domain.
Contains 2 Sushi (CCP/SCR) domains.

Cellular localization
Secreted.
Competitive ELISA - Haptoglobin (ab108856)

Haptoglobin measured in various biological fluids showing quantity (μg) per mL of sample tested.

Representative Standard Curve using ab108856.

Typical Standard Curve

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