MERCODIA INSULIN ELISA
10-1113-01 / 10-1113-10

WHEN ACCURACY MATTERS
www.mercodia.com
Intended use
A high quality enzyme immunoassay for the quantification of human insulin in serum or plasma.

Test principle
Mercodia Insulin ELISA is a solid phase two-site enzyme immunoassay based on the sandwich technique, in which two monoclonal antibodies are directed against separate antigenic determinants on the insulin molecule. Insulin in the sample reacts with anti-insulin antibodies bound to microtitration wells and peroxidase-conjugated anti-insulin antibodies in the solution.

Test characteristics

Sensitivity
The detection limit is 1 mU/L calculated as two standard deviations above the Calibrator 0.

Recovery
Recovery upon addition is 94 - 113 % (mean 104 %).

Precision
Each sample was analyzed in 6 replicates on 6 different occasions.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mean value (μg/L)</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>within assay %</td>
<td>between assay %</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>3.4</td>
</tr>
<tr>
<td>2</td>
<td>36</td>
<td>4.0</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
<td>2.8</td>
</tr>
<tr>
<td>4</td>
<td>154</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Performance limitations
Grossly lipemic, icteric or haemolyzed samples do not interfere in the assay.

Specificity
The following cross-reactions have been tested:
- C-peptide < 0.01 %
- Proinsulin < 0.01 %
- Proinsulin des (31–32) < 0.5 %
- Proinsulin split (32–33) < 0.5 %
- Proinsulin des (64–65) 98 %
- Proinsulin split (65–66) 56 %
- Insulin lispro < 0.000004 %
- Insulin aspart 4.0 %
- Insulin detemir < 0.0000009 %
- Insulin glargine 24 %
- Insulin glulisine < 0.000004 %
- IGF-I < 0.02 %
- IGF-II < 0.02 %
- Rat insulin 0.7 %
- Mouse insulin 0.3 %
- Porcine insulin 374 %
- Ovine insulin 48 %
- Bovine insulin 31 %

Samples
Serum, EDTA and heparin plasma can be used.

Measurement range
3 - 200 mU/L

Catalog No
10-1113-01  1 x 96 wells
10-1113-10  10 x 96 wells