MERCODIA ULTRASENSITIVE INSULIN ELISA
10-1132-01

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 Ultrasensitive 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 0.15 mU/L calculated as two standard deviations above the Calibrator 0.

Recovery
Recovery upon addition is 97-107 % (102 %).

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>5.7</td>
<td>5.3</td>
</tr>
<tr>
<td>2</td>
<td>8.2</td>
<td>4.2</td>
</tr>
<tr>
<td>3</td>
<td>15.5</td>
<td>5.1</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: < 0.000006 %
- Insulin aspart: 3.0 %
- Insulin detemir: < 0.000006 %
- Insulin glargine: 12 %
- Insulin glulisine: < 0.000002 %
- 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
0.15 - 20 mU/L

Catalog No
10-1132-01 1 x 96 wells