Ferritin SR*

Diagnostic reagent for quantitative in vitro determination of ferritin in serum or plasma on DiaSys respons®920

Order Information
Cat. No. 1 7245 99 10 921
4 twin containers for 80 determinations each
Cat. No. 1 7245 99 10 926
2 twin containers for 80 determinations each

Method
Particle enhanced immunoturbidimetric test

Principle
Determination of the ferritin concentration by photometric measurement of antigen-antibody-reaction of latex-particles coated with anti-ferritin with ferritin present in the sample (agglutination).

Reagents
Components and Concentrations
R1: Tris Buffer pH 7.2 120 mmol/L
R2: Latex particles coated with rabbit antibodies against human ferritin

Storage Instructions and Reagent Stability
Unopened reagents are stable up to the end of the indicated month of expiry, if stored at 2 – 8°C and contamination is avoided.

Warnings and Precautions

Waste Management
Do not use hemolytic samples. Freeze only once.

Calibrators and Controls
DiaSys TruCal Ferritin SR calibrator set is recommended for calibration. The assigned calibrator values have been made traceable to the WHO International Standard Ferritin, NIBSC 94/572. For internal quality control DiaSys TruLab Protein controls should be assayed. Each laboratory should establish corrective actions in case of deviations in control recovery.

Performance Characteristics
Measuring range up to 440 µg/L ferritin, at least up to the concentration of the highest calibrator: (in case of higher concentrations re-measure samples after manual dilution with NaCl solution (9 g/L) or use the rerun function).

- Limit of detection** 3 µg/L ferritin
- No cross反应 up to 125000 µg/L ferritin
- On-board stability 4 weeks
- Calibration stability 2 weeks

Interfering substance Interferences < 10% Ferritin [µg/L]
Hemoglobin up to 100 mg/dL 39.0
Bilirubin, conjugated up to 65 mg/dL 30.2
Bilirubin, unconjugated up to 70 mg/dL 147
Lipemia (triglycerides) up to 900 mg/dL 27.5
up to 750 mg/dL 139

For further information on interfering substances refer to Young DS [2].

Precision
Within run (n=20)
Mean [µg/L] 45.9 263 362
Coefficient of variation [%] 2.15 2.38 2.07
Between run (n=20)
Mean [µg/L] 47.6 263 362
Coefficient of variation [%] 3.00 2.45 1.37

Method comparison (n=80)

Test x DiaSys Ferritin SR (respons®920)
Test y Competitor Ferritin (Hitachi 917)
Slope 0.884
Intercept 0.367 µg/L
Coefficient of correlation 0.996

** according to NCCLS document EP17-A, vol. 24, no. 34

Reference Range [3]
Children 4 months – 16 years
Men 15 – 150 µg/L
Adults Women < 50 years
Men 30 – 400 µg/L
Women > 50 years

Each laboratory should check if the reference ranges are transferable to its own patient population and determine own reference ranges if necessary.

Specimen
Serum or plasma (EDTA, heparin)

Stability [1]:
7 days at 20 – 25°C
7 days at 2 – 8°C
1 year at −20°C

* special for respons®920
Literature

### Test Details

<table>
<thead>
<tr>
<th>Test</th>
<th>FERR</th>
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<tbody>
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<td>Sample Type</td>
<td>Serum</td>
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</table>

### Test Volumes

#### Sample Volumes

- **Normal**
  - Volume: 13.6 µL
  - Dilution Ratio: 1 X

- **Increase**
  - Volume: 20.0 µL
  - Dilution Ratio: 1 X

- **Decrease**
  - Volume: 7.00 µL
  - Dilution Ratio: 3 X

**Standard Volume**: 13.6 µL

#### Reagent Volumes and Stirrer Speed

- **RGT-1 Volume**: 90 µL
  - R1 Stirrer Speed: High

- **RGT-2 Volume**: 90 µL
  - R2 Stirrer Speed: High

### Reference Ranges

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#### Reference Ranges

| Category | Male |

- **Reference Range**
  - **Lower Limit**
    - (µg/L): 30.0
  - **Upper Limit**
    - (µg/L): 400

- **Panic**
  - **Lower Limit**
    - (µg/L): 0.00
  - **Upper Limit**
    - (µg/L): 0.00

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*Technical limits are automatically defined by the software via the upper and lower calibrator level.
** Enter calibrator value.