

Diagnostic Laboratory Services

Iron (Fe)

Test ID: LAB94

Explanation: On the effective date, the following methodology changes will be made to the Iron (LAB94) assay. All samples will be tested at our Main Campus Laboratory.

Current Methodology
Abbott, Ferene

New Methodology
Roche, FerroZine (without deproteinization)

Current Reference Intervals
0 to <14 Years: 16 – 128 µg/dL 14 Years to < 19 Years: 20 – 168 µg/dL 19 Years and older: 50 – 175 µg/dL

New Reference Intervals
0 to <14 Years: 29 - 137 µg/dL 14 Years to < 18 Years (Male): 43 – 176 µg/dL 14 Years to < 18 Years (Female): 33 – 170 µg/dL 18 Years and older (Male): 61 – 157 µg/dL 18 Years and older (Female): 37 – 145 µg/dL

Current Specimen Requirements
Lithium Heparin Plasma

New Specimen Requirements
Lithium Heparin Plasma

Current Requested Volume
Preferred Specimen Volume: 1 Light Green Top Specimen Minimum Volume: 1 mL Plasma Pediatric Minimum Volume: 1 Light Green Microtainer

New Requested Volume
Preferred Specimen Volume: 1 Light Green Top Specimen Minimum Volume: 1 mL Plasma Pediatric Minimum Volume: 1 Light Green Microtainer

Current Specimen Stability		
Specimen	Temperature	Time
Plasma	20-25°C	7 Days
Plasma	2-8 °C	21 Days
Plasma	-20°C	1 Year

New Specimen Stability		
Specimen	Temperature	Time
Plasma	20-25°C	7 Days
Plasma	2-8 °C	21 Days
Plasma	-20°C	Several Years

Current Days Performed
Daily

New Days Performed
Daily

Current Report Available
Daily

New Report Available
Daily

Current Reporting Range
5 – 6550 µg/dL

New Reporting Range
5 – 1000 µg/dL

New Methodology Testing Interferences
<ul style="list-style-type: none">• In patients treated with iron supplements or metal-binding drugs, the drug-bound iron may not properly react in the test, resulting in artificially low values.• In the presence of high ferritin concentrations >1200 µg/L the assumption that serum iron is almost completely bound to transferrin is not valid anymore. Therefore, such iron results should not be used to calculate Total Iron Binding Capacity (TIBC) or percent transferrin saturation (%SAT).• In very rare cases, gammopathy, in particular type IgM (Waldenstrom's macroglobulinemia), may cause unreliable results.

Questions: Please get in touch with VUMC Lab Customer Service at 615-875-5227 (5-LABS) or visit our website: www.labVU.com

Diagnostic Laboratory Services

Total Iron Binding Capacity (TBC)

Test ID: LAB829

Explanation: On the effective date, the following methodology changes will be made to the Total Iron Binding Capacity (LAB829) assay. All samples will be tested at our Main Campus Laboratory.

Current Methodology
Abbott, Ferene

New Methodology
Roche, FerroZine

Current Reference Intervals
All Ages (Male): 70 – 310 µg/dL All Ages (Female): 60 – 240 µg/dL

New Reference Intervals
0 to < 2 Months: 59 – 175 µg/dL 2 Months to < 18 Years: 250 – 400 µg/dL 18 Years and older: 240 – 450 µg/dL
<i>Note: Lithium heparin plasma values are approximately 6% lower than serum values.</i>

Current Specimen Requirements
Lithium Heparin Plasma

New Specimen Requirements
Lithium Heparin Plasma

Current Requested Volume
Preferred Specimen Volume: 1 Light Green Top Specimen Minimum Volume: 1 mL Plasma Pediatric Minimum Volume: 1 Light Green Microtainer

New Requested Volume
Preferred Specimen Volume: 1 Light Green Top Specimen Minimum Volume: 1 mL Plasma Pediatric Minimum Volume: 1 Light Green Microtainer

Current Specimen Stability		
Specimen	Temperature	Time
Plasma	20-25°C	7 Days
Plasma	2-8 °C	21 Days
Plasma	-20°C	1 Year

New Specimen Stability		
Specimen	Temperature	Time
Plasma	20-25°C	7 Days
Plasma	2-8 °C	21 Days
Plasma	-20°C	1 Year

Current Days Performed
Daily

New Days Performed
Daily

Current Report Available
Daily

New Report Available
Daily

Current Analytical Range
25 – 500 µg/dL

New Analytical Range
16.8 – 700 µg/dL

New Methodology Testing Interferences
<ul style="list-style-type: none">• In patients treated with iron supplements or metal-binding drugs, the drug-bound iron may not properly react in the test, resulting in falsely low values.• The physiological function of deferoxamine containing drugs is to bind iron to facilitate its elimination from the body. Therefore, any deferoxamine concentration interferes with the UIBC assay. In the presence of high ferritin concentrations > 1200 µg/L the assumption that serum iron is almost completely bound to transferrin is not valid anymore. Therefore, such iron results should not be used to calculate Total Iron Binding Capacity (TIBC) or percent transferrin saturation (% SAT).• In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results.• Note: Lithium heparin plasma values are approximately 6 % lower than serum values.

Questions: Please get in touch with VUMC Lab Customer Service at 615-875-5227 (5-LABS) or visit our website: www.labVU.com