

Legacy Laboratory Services

Legacy Lab Alert

January 2020

An Important Update from Legacy Laboratory Services

New Reference Ranges for UIBC and TIBC

Effective February 4, 2020, Legacy Laboratory Services will change the method manufacturer for Unsaturated Iron Binding Capacity (UIBC) testing. The new method from Beckman is approximately 7% higher than current method from Sekisui. Since Total Iron Binding Capacity (TIBC) and Iron Saturation are calculated from UIBC and Iron, the TIBC results will increase about 5% and the Iron Saturation results will decrease about 5-6%. **Reference range studies were performed for the new UIBC, TIBC, and Iron Saturation tests. UIBC and TIBC reference ranges will change slightly, while %Iron Saturation will remain the same (Table 1).** Methods and reference ranges for Iron and Ferritin will remain the same. For additional specimen requirement information, refer to Table 2.

Table 1: Comparison of Reference Ranges - Differences are in red font.

Test	Units	Males and Females (All Ages)	
		New (Go Live 2/4/20)	Current (Before 2/4/20)
UIBC	µg/dL	153 - 308	130 - 300
TIBC	µg/dL	233 - 397	220 - 390
% Iron Saturation (also called Transferrin Saturation)	%	15 - 50	15 - 50

Table 2: Comparison of Specimen Requirements – Significant differences are in red font.

Name	Iron Binding Capacity, Unsaturated		Iron Deficiency Panel	
Mnemonic	IRON IBC		IRON DEF	
Date	New (Go Live 2/4/20)	Current (Before 2/4/20)	New (Go Live 2/4/20)	Current (Before 2/4/20)
Includes	<ul style="list-style-type: none"> Iron UIBC TIBC (calculation) Iron Saturation (calculation) 		<ul style="list-style-type: none"> Iron UIBC TIBC (calculation) Iron Saturation (calculation) Ferritin 	
Patient Preparation	Specimen should be collected in the morning from patients who have fasted for at least 8 hours. Iron levels decrease by 30% during the course of the day. The patient should not take iron supplements at least 24 hours before blood is drawn.		Specimen should be collected in the morning from patients who have fasted for at least 8 hours. Iron levels decrease by 30% during the course of the day. The patient should not take iron supplements at least 24 hours before blood is drawn.	
Collect	Serum or Plasma, one 5.0 mL gold (SST), 7.0 mL red, or 3.0 mL mint green (lithium heparin, PST) top tube		Serum or Plasma, one 5.0 mL gold (SST), 7.0 mL red, or 3.0 mL mint green (lithium heparin, PST) top tube	

Name		Iron Binding Capacity, Unsaturated		Iron Deficiency Panel	
Mnemonic		IRON IBC		IRON DEF	
Date		New (Go Live 2/4/20)	Current (Before 2/4/20)	New (Go Live 2/4/20)	Current (Before 2/4/20)
Handling		Allow serum to clot completely at room temperature (minimum for SST: 30 minutes; minimum for red top tubes: 60 minutes). Centrifuge and separate serum or plasma from cells within 8 hours of collection. Avoid contamination with environmental iron. Use only Iron-free collection tubes, pipets and test tubes.	Allow serum to clot completely at room temperature (minimum for SST: 30 minutes; minimum for red top tubes: 60 minutes). Centrifuge and separate serum or plasma from cells within 2 hours of collection. Avoid contamination with environmental iron. Use only Iron-free collection tubes, pipets and test tubes.	Allow serum to clot completely at room temperature (minimum for SST: 30 minutes; minimum for red top tubes: 60 minutes). Centrifuge and separate serum or plasma from cells within 2 hours of collection. Avoid contamination with environmental iron. Use only Iron-free collection tubes, pipets and test tubes.	Allow serum to clot completely at room temperature (minimum for SST: 30 minutes; minimum for red top tubes: 60 minutes). Centrifuge and separate serum or plasma from cells within 2 hours of collection. Avoid contamination with environmental iron. Use only Iron-free collection tubes, pipets and test tubes.
Preferred Volume		1.0 mL Serum/Plasma		1.0 mL Serum/Plasma	
Minimum Volume		0.25 mL Serum/Plasma (0.6 mL <i>minimum whole blood draw</i>)		0.5 mL Serum/Plasma (1.2 mL <i>minimum whole blood draw</i>)	
Transport		Refrigerated (2-8 °C)		Refrigerated (2-8 °C)	
Rejection Criteria		Moderate Hemolysis	Gross hemolysis	Moderate Hemolysis	Gross hemolysis
Whole Blood (Unspun) Stability	Room Temp (18-26°C)	8 hours	2 hours	2 hours	2 hours
	Refrigerated (2-8°C)	8 hours	2 hours	2 hours	2 hours
	Frozen (< -20°C)	unacceptable	unacceptable	unacceptable	unacceptable
Serum & Plasma Stability	Room Temp (18-26°C)	4 days	8 hours	8 hours	8 hours
	Refrigerated (2-8°C)	7 days	7 days	2 days	2 days
	Frozen (< -20°C)	1 month	1 month	1 month	1 month
Note		TIBC and Iron Saturation are calculated from both iron and UIBC.		TIBC and Iron Saturation are calculated from both iron and UIBC.	
Performed		7 days/ week		7 days/ week	
Reported		24 hours		24 hours	
Method		<ul style="list-style-type: none"> Colorimetry (Beckman) 	<ul style="list-style-type: none"> Colorimetry (Sekisui) 	<ul style="list-style-type: none"> Colorimetry (Beckman) Chemiluminescent Immunoassay 	<ul style="list-style-type: none"> Colorimetry (Sekisui) Chemiluminescent Immunoassay
Reference Ranges		See table 1.		See table 1.	
CPT Codes		<ul style="list-style-type: none"> Iron: 83540 IBC: 83550 		<ul style="list-style-type: none"> Iron: 83540 IBC: 83550 Ferritin: 82728 	

For additional information, please contact your account representative, client services or consult our website: Legacy Laboratory Client Services: 503-413-1234, 877-270-5566, www.legacyhealth.org/labservices

