

## Unsaturated Iron Binding Capacity (UIBC) Test Kit (Ferene)

### 【NAME】

Unsaturated Iron Binding Capacity (UIBC) Test Kit (Ferene)

### 【INTEND USE】

This reagent is intended for the in vitro quantitative determination of Unsaturated Iron Binding Capacity (UIBC) in human serum.

### 【METHODOLOGY】

The excess iron ions are present in the alkaline buffer and serum NO and iron binding of transferrin, combined with iron all, remaining ferric ion and reducing agent, chromogenic agent role after the generation of the blue complex, at the wavelength of 600 nm detection. By calculating the amount of iron ions in the buffer solution, we can calculate the amount of the unsaturated iron binding capacity.

### 【STABILITY AND STORAGE】

Unopened, avoid light preservation in 2 ~ 8 °C, valid for 12 months;

Opened, avoid contamination preservation in 2 ~ 8 °C, valid for 1 month.

Reagent is not allowed frozen.

### 【SPECIMEN COLLECTION AND HANDLING】

It is best to fresh non-hemolytic serum, and avoid mixed with erythrocyte.

Sample stability: 2~8°C preservation stability in 1 week;

-20°C preservation stability in 1 month.

When the lipid emulsion concentration of sample ≤ 300mg/L, bilirubin concentrations ≤ 600mg/L, hemoglobin hemoglobin ≤ 150mg/L, VC ≤ 500mg/L, Cu<sup>2+</sup> ≤ 50 μmol/L, Zn<sup>2+</sup> ≤ 80 μmol/L, was not observed clearly disturbance.

### 【APPLICABLE INSTRUMENT】

Fully automatic biochemical analyzer

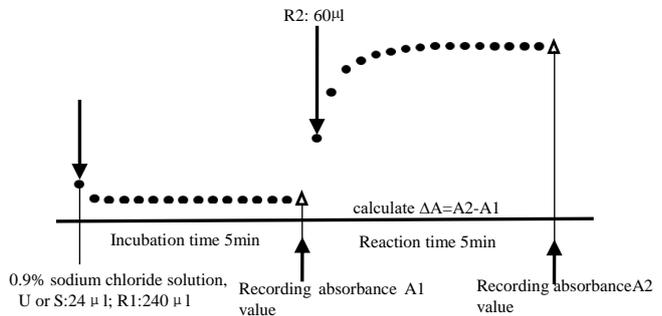
### 【SYSTEM PARAMETERS】

The following system parameters are recommended. Individual instrument applications are available upon request from the Technical Support Group

Temperature	37° C
Cuvette light path	1.0cm
Primary Wavelength	600nm
Secondary Wavelength	700nm
Assay Type	Two Point End
Direction	Increase
Sample: Reagent 1: Reagent 2 Ratio	2:20: 5
eg : Sample Vol.	24 μL
Reagent1 Vol.	240 μL
Reagent2 Vol.	60 μL
Linearity	0~80 μmol/L
Testing	Deducting the reagent blank

### 【OPERATION STEPS】

R1: Reagent 1    R2: Reagent 2    S: Calibrator    U: Sample



### 【CALCULATION】

Use The Calibrator

Sample  $\Delta A$

Sample UIBC concentration =  $\frac{\text{Sample } \Delta A}{\text{Calibrator } \Delta A} \times \text{Calibrator concentration}$

### 【REFERENCE RANGE】

31~51 μmol/L By clinical trials, choose no less than 100 newborn or adults blood specimens, tested by automatic biochemical analyzer, and then processing the testing value with statistical method, calculating out the reference range.

**Recommendation: The laboratory set up its own reference range!**

### 【THE LIMITATION OF TEST RESULTS】

Unsaturated Iron Binding Capacity (UIBC) testing is just one of the standard that clinician diagnose the patient. Clinical physicians should according to patients' bodies, history and other diagnostic program, to get comprehensive judgment.

### 【THE INTERPRETATION OF TEST RESULTS】

Human error, the processing of specimen, analysis instrument deviation, etc. all can affect the measurement result; When one sample deviates from the expected value too far, need to be tested again.

### 【PERFORMANCE INDEX】

1. Reagent blank absorbance ≤ 0.3, (600nm, 1cm optical path).
2. Precision: repeatability CV ≤ 10%; batch variations R ≤ 10%.
3. Accuracy: relative deviation ≤ 10%.
4. Linearity range: 0~80 μmol/L, r ≥ 0.990.
5. Stability: All package reagent, non corrosive gas and avoid light, preservation in 2~8 °C, stable 12 months.

### 【ATTENTION】

1. Reagent contains sodium azide (toxic) preservatives, avoid contact with skin and mucous membrane. If necessary preventive measures should be taken use of reagents, reagent contact with skin and mucous membrane, please rinse with water, please go to a doctor if necessary.
2. The maximum linearity is 80 μmol/L. If testing results is upper limit, dilute with 0.9% sodium chloride solution before test, results multiplied by the dilution ratio.
3. Liquid waste disposal: Suggest follow local regulations.
4. This specification is applied to the double reagent.
5. Different batches reagents cannot mix, when replacing reagents batch number, please calibration again.