

## Serum Total Iron Binding Capacity (TIBC) Assay Kit (Visible Spectrophotometers)

Catlog Number: BBITK-HMM-0015

### Description

Serum total iron binding capacity (TIBC) refers to the ability of serum transferrin to bind all iron. Its content level is closely related to the occurrence and development of diseases such as iron deficiency anemia and acute hepatitis, and the level of transferrin can be indirectly reflected by measuring the total iron binding capacity.

### Basic Information

Testing Equipment: Visible Spectrophotometers

Matching: 1 mL glass cuvette (d=10 mm)

Number of Testable Samples: 48 Samples

Estimated Measurement Time: 2 h (48 Samples)

Self-contained Reagents: /

Detection Methods: Phenanthroline Colorimetric Method

Detection Wavelength: 562 nm

Signal Response: Incremental

### Detection Principle

Serum transferrin can bind to  $Fe^{3+}$  under alkaline conditions. Unbound  $Fe^{3+}$  is reduced to  $Fe^{2+}$ .  $Fe^{2+}$  can react with phenanthroline to form a purple-red compound. The product has a characteristic absorption peak at 562 nm. At this time, the absorbance value at 562 nm is positively correlated with unbound  $Fe^{3+}$ . After acidification treatment,  $Fe^{3+}$  bound to serum transferrin is released and further reduced to  $Fe^{2+}$ . At this time, the absorbance is positively correlated with the total amount of  $Fe^{3+}$ . Therefore, the total iron binding ability of serum can be characterized by the change in absorbance value.

### Note

To ensure accurate results and avoid loss of reagents, please read the instruction manual carefully before the measurement, make sure the reagents are adequately stored and prepared, and the operation steps are clear, and be sure to take 2-3 samples with expected differences for pre-calibration.

### Specification

50T/48S



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### • Storage & Transportation

Store at 4°C



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