

## TOTAL IRON BINDING CAPACITY (TIBC)

**Colorimetric Method**

**50 Tests**

### PRINCIPLE :

TIBC is measured after the saturation of the transferrin by the iron and the adsorption of the excess iron on magnesium hydroxy carbonate. Determination of iron is then performed by the colorimetric method used for iron determination .

### SAMPLE :

Serum . Samples free of hemolysis, can be stored for 24 hours at +4 to +8°C

### NORMAL VALUES :

46.4 – 69.5 µmol/L (259 - 388 µg/dl)

### REAGENTS :

1.	Iron saturating solution	6 mg/L
2.	Adsorbant reagent: Magnesium hydroxy carbonate powder	

### STABILITY :

The reagents are stable up to the expiry date specified when stored at +15 to +25 °C .

### PROCEDURE :

Pipette into test tubes ( FREE OF IRON )	
Sample	0.5 ml
Reagent 1	1.0 ml
Mix, let stand for 10 min. then add :	
Reagent 2	1 spoon ( 200 mg )

Mix from time to time, over a period of 30 min. centrifuge for 15 min. at 3000 rpm. For measurement of TIBC consider the supernatant as serum and proceed for the measurement as in case of iron, starting from the deproteinization step till the end of the experiment. Use 0.5ml supernatant for assay of iron according to Kit provided by Biodiagnostic

### CALCULATION :

#### TIBC

$$= \frac{A_{\text{Sample}}}{A_{\text{Standard}}} \times \text{Standard Conc.} \times 3 \text{ (Dilution factor)}$$

Standard Conc. : 35.8 µmol/L (200 µg/dl)

### REFERENCE :

Piccardi G., Nyssen M., Dorche J . ( 1972 ): J . Clin . Chim. Acta., 40 : 219 .

