

## Transferrin (TRF) Test Kit (Immunoturbidimetry)

**【NAME】**

Transferrin (TRF) Test Kit (Immunoturbidimetry)

**【INTEND USE】**

This reagent is intended for the in vitro quantitative determination of Transferrin (TRF) in human serum. Transferrin (TRF) can prevent iron poisoning and loss through the kidneys after connecting the iron. Raising its level is common in iron deficiency, pregnancy, estrogen control, and fat-kidney disease. Reducing the levels is common in genetic defects, control of testosterone, infection, acute inflammation, certain types of glomerulonephritis, hemoglobin deletion, malnutrition and acute malaria.

**【METHODOLOGY】**

Sample's transferrin reacts with reagent's human transferrin antibody, forming rapid antigen-antibody complexes in the buffer solution, the reaction liquid appears turbid. When the antibodies are in excess in the reaction liquid, the formation of the complexes increases with the increase of the amount of antigen, the reaction liquid turbidity also increases, using the end point method to monitor the absorbance changes at 340nm, compared with the calibration, can calculate the unknown specimen transferrin levels.

**【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 to be frozen.

**【SPECIMEN COLLECTION AND HANDLING】**

Serum, blood clots should be removed from specimen by centrifugal separation.

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

Sample's chyle ≤ 0.3%, bilirubin ≤ 500 μM, heparin sodium ≤ 100 U/mL, hemoglobin ≤ 5 g/L, VC ≤ 0.5 g/L not observed obvious interference.

**【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                  | 340 nm                      |
| Secondary Wavelength                | 700nm                       |
| Assay Type                          | Two Point End               |
| Direction                           | Increase                    |
| Sample : Reagent 1: Reagent 2 Ratio | 3:240:80                    |
| eg : Sample Vol.                    | 3 μL                        |
| Reagent1 Vol.                       | 240 μL                      |
| Reagent2 Vol.                       | 80 μL                       |
| Linearity                           | 0~400mg/dL                  |
| Testing                             | Deducting the reagent blank |

**【ATTENTION】**

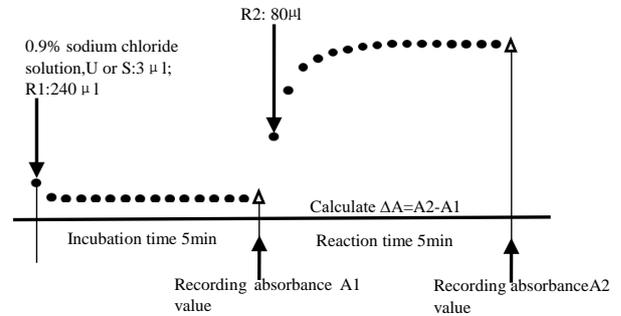
1. This product is only used for in vitro diagnostic. If touched with the human body, use a lot of water washing.
2. If there is no specified wavelength in the instrument, select wavelength close to numerical input.
3. According to medical waste disposal method, deal with contact test specimen tube apparatus.
4. Other instrument model should be verified by the lab, if you need the

details parameters please contact us.

5. Different batches of reagents cannot mix, when replacing reagents batch number, please calibrate again!!

**【OPERATION STEPS】**

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



**【CALCULATION】**

$$\text{TRF sample concentration} = \frac{\text{Sample } \Delta A}{\text{Calibration } \Delta A} \times \text{Calibration Concentration}$$

According to the calibration requirements, with different levels of calibration solution, together with 9 g/L sodium chloride solution as the blank. After measurement, the instrument automatically synthesizes a calibration curve for the calibration response quantity through the appropriate mathematical model (such as Logit/ Spline). Using TRF calibration values to calibrate the instrument, within the scope of the reportable results, the instrument directly reports reliable test results.

**【REFERENCE RANGE】**

170 ~ 340mg/dL

By clinical trials, choose no less than 100 newborn or adults blood specimens, tested by automatic biochemical analyzer, and then process 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】**

Transferrin (TRF) testing is just one of the standards that clinicians diagnose the patient. Clinical physicians should, according to patients' bodies, history and other diagnostic programs, 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, (340nm, 1cm optical path).
2. Precision: repeatability CV ≤ 6%; batch variations R ≤ 8%.
3. Accuracy: relative deviation ≤ 10%.
4. Linearity range: 0~400mg/dL, r ≥ 0.990.
5. Stability: All package reagent, non-corrosive gas and avoid light, preservation in 2~8 °C, stable 12 months.