NEPHCHEM FERRITIN

(Nephelometry Method)

KIT NAME	KIT SIZE	CAT. NO
Nephchem - Ferritin	25 T	NFER01025T

GENUINE BIOSYSTEM

INTRODUCTION

Ferritin is a spherical, hollow iron storage protein that stores about 450,000 iron atoms.

Ferritin is mainly distributed in liver and spleen, and participates in detoxification and storage. The content of ferritin in serum is very small, but the dynamic change of its value reflects the storage of iron in the body. The determination of serum FER concentration is very useful for the diagnosis, treatment and prognosis of iron metabolism abnormalities such as anemia and iron excess, liver diseases, etc.

METHOD PRINCIPLE

The Kit utilizes latex-enhanced immunoturbidimetry to measure the Ferritin level in human serum or plasma. During the test, Ferritin in the sample binds with the specific anti Ferritin antibody to cause agglutination. The turbidity caused by agglutination is detected optically by chemistry analyzer. The change in absorbance is proportional to the level of Ferritin in the sample. The actual concentration is obtained by comparing with a calibration curve with known concentration.

KIT CONTENTS

Reagent kit - box	
R1 - Ferritin Buffer	1 x 4.9 ml
R2 - Ferritin Antibody	1 x 1.6 ml
Test Card	1 no
Accessories kit box	
Cuvettes	25 nos
Big tips	25 nos
small tips	50 nos

WORKING REAGENT PREPARATION AND STABILITY

Assay can be performed with use of R1-FER and R2-FER reagents. 3 Parts of R1-FER With 1 part of R2-FER . Avoid Foaming

CONCENTRATIONS IN THE TEST

R1 - Phosphate buffer. Polyethylene glycol, Sodium Azide <0.1%

R2 - anti-Ferritin antibodies, Tirs buffer solution, sodium azide < 0.1%

WARNINGS AND NOTES

1. The Kit is for in vitro diagnostic use only. Not for use in humans or animals.
2. The instructions must be followed to obtain accurate results.
3. Do not use the reagents beyond the expiration date.
4. Treat all specimens as infectious. Proper handling and disposal procedures of specimens and test materials should be strictly followed.
5. Reagents contain less than 0.1% sodium azide as preservative; avoid contact with skin and eyes, flush with copious amounts of water when disposing.

SPECIMEN

Follow standard laboratory procedures to collect serum or heparin plasma samples.

It is recommended to perform test immediately after sample collection. If the test cannot be done immediately, store sample at 2- 8° C for up to 1 day or at -80° C for up to 6 months. Avoid repeated freezing and thawing.

PROCEDURE

It is very important for antigen-antibody reaction needs the pre-warm of both reagents and samples. Along with GB NEPHCHEM equipment, dry bath incubator will be provided, in that dedicated R1, R2 and sample positions were available. Please use the respective positions for desired pre-warm temperature of 37°C.

Step 1: Insert Test Card to Card reader slot and display will show promptly add R1 + S (sample)

Step 2: Pipette out 180 µl of R1 into dedicated cuvette and add 5 µl of sample (serum) and place the cuvette in the reading chamber.

Step 3: After the incubation, the display will show promptly add R2.

Step 4: Pipette out 60 µl of R2 using sensor pipette connected with machine into the cuvette.

Step 5: Once the reaction time got over, the result will show in the display and (if external printer connected then it will get print out)

REFERENCE VALUES

20 to 250 ng/mL

It is recommended for each laboratory to establish its own reference ranges for local population.

QUALITY CONTROL

To ensure adequate quality control, each kit can be cross checked with commercially available third party Immunological quality control or use recommended GB Immunology Quality control.

PERFORMANCE CHARACTERISTICS

- Linearity: 20 to 1000 ng/mL
- Precision: within Run CV < 8%
- Specificity / Interferences:

No interference detected for saturated bilirubin upto 19.6 mg/dL, free bilirubin 18.4 mg/dL, Rheumatoid factor 500 IU/L and hemoglobin 460 mg/dL

WASTE MANAGEMENT

Please refer to local legal requirements.

LITERATURE

1. Adam S.S., Key N.S., Greenbery C.S. D-dimer antigen: current concepts and future prospects. Blood 113 (13): 2878-87.
2. Gaffney, P.J. Distinction between Fibrinogen and Fibrin Degradation Products in Plasma. Clin. Chem. Acta. 65 (1): 109-115; 1975.
3. Rylatt, D.B., et al. An Immunoassay for Human D-DImer using Monoclonal Antibodies. Thromb. Res. 31(6): 767-778; 1986.
4. Smith, R.T.,e.tal.Fibrin Degradation Products in the Postoperative Period. Evaluation of a New Latex Agglutination Method. Am. J. Clin. Pathol. 60(5): 644-647; 1973

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