Bialex®

Znic (Zn)Test Kit
(Colorimetric)

ZN - 71343	R1: 48x2 ml R2: 12x2 ml
Test for in vitro diagnostic of Znic by Colorimetric Method	

Znic (Zn)Test Kit (Colorimetric)

PRICIPLE OF THE METHOD

The reagent is intended for the invitro quantitative determination of Znic (Zn) in human serum.

In clinical,serum iron decrease often appears in the following situations:Iron deficiency diet, malabsorption, chronic blood loss, pregnancy,or an infant growth and development needs higher iron content caused by iron deficiency anemia,chronic infection, liver cirrhosis, uremia, nephrotic syndrome, malignant tumor.serum iron increase often appears in the following situations:excess iron treatment, hemolytic anemia, aplastic anemia, gigantic young cell anaemia, hemoglobin generated barrier anemia (thalassemia);Acute hepatitis, liver cell necrosis, etc.

METHODOLOGY

The Nitro - PAPS react with zinc in the alkaline solution，Generate purple complexes， in the 570nm have the biggest absorption peak 。 The interference of Cu^{2+} and iron ions can by adjusting the PH value and adding the pincers compound completely eliminated.

STABILITY AND STORAGE

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

Opened, avoid light preservation in 2 ~ 8 ℃, valid for 1 month.

Reagent is not allowed frozen.

SPECIMEN COLLECTION AND HANDLING

It is bset to fresh Serum or Urine;

When the TG≤1000mg/dL;bilirubin concentrations ≤ 500mg/L,hemoglobin hemoglobin≤150mg/L, VC≤100mg/dL,Cu^{2+}≤60 μ mol/L,Fe^{3+}≤80 μ mol/L, Ca^{3+}≤5mmol/L, Mg^{2+}≤4mmol/L was not observed clearly disturbance.

APPLICABLE INSTRUMENT

Fully automatic biochemical analyzer.

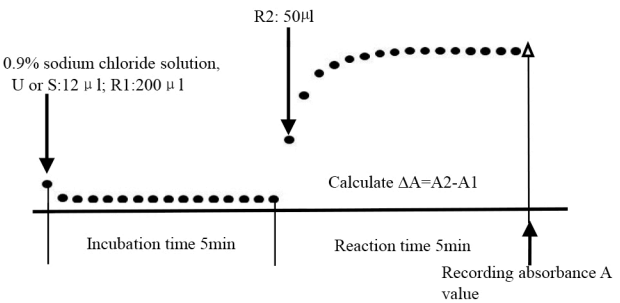
SYSTEM PARAMETERS

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	570 nm
Secondary Wavelength	700nm
Assay Type	One Point End
Direction	Increase
Sample : Reagent Ratio	6:100:25
eg : Sample Vol	12 μL
Reagent1 Vol	200 μL
Reagent2 Vol	50 μL
Linearity	0～500ug /Dl
Testing	Deducting the reagent blank

OPERATION STEPS

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



CALCULATION

$$\text{Zn sample concentration} = \frac{\text{SampleA}}{\text{CalibratorA}} \times \text{Calibrator concentration}$$

REFERENCE RANGE

Serum:70-115ug/dL

Urine:100-1000ug/24h

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.

THE LIMITATION OF TEST RESULTS

Serum Iron (Fe) testing is just one of the standard that clinicist 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≤0.5000,(570nm，lcm optical path).

2.Precision: repeatability CV≤10%;batch variations R≤10%.

3.Accuracy: relative deviation ≤10%.

4.Linearity range: 0~500 μ g/L, r≥0.990.

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.Different batches reagents cannot mix, when replacing reagents batch number, please calibration again.

3.Should be according to the specified method to store reagent after opening reagent.

4.Liquid waste disposal: Suggest follow local regulations

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