CORALYZER
System Pack

Iron Kit

(Ferrozine Method)

For the determination of Iron in serum.
(For Invitro Diagnostic Use Only)

Summary
Iron found in blood is mainly present in the hemoglobin of the RBC's. It's role in the body is mainly in the transportation of oxygen and cellular oxidation. Iron is absorbed in the small intestine, and bound to a globulin in the plasma, called transferrin and transported to the bone marrow for the formation of hemoglobin. Increased serum levels are found in hemolytic anemias, hepatitis, lead and iron poisoning. Decreased serum levels are found in anemias caused by iron deficiency due to insufficient intake or absorption of iron, chronic blood loss, late pregnancy and cancer.

Principle
Iron bound to Transferrin is released in an acidic medium and the Ferric ions are reduced to Ferrous ions. The Fe (II) ions react with Ferrozine to form a violet coloured complex. Intensity of the complex formed is directly proportional to the amount of Iron present in the sample.



Normal reference values

Serum	Males	:	60-160 µg/dl
	Females	:	35-145 µg/dl
	Neonates	:	150-220 µg/dl

It is recommended that each laboratory establish its own normal range representing its patient population.

Contents

Coralyzer 200 System Pack	**75 ml**
L1 : Iron Buffer Reagent	2 x 35 ml
L2 : Iron Colour Reagent	5 ml

Storage / stability
Contents are stable at 2 - 8° C till the expiry mentioned on the labels.

Reagent Preparation
Reagents are ready to use.

Sample material
Serum, free from hemolysis. Iron is reported to be stable in serum for 7 days at 2 - 8° C.

Calibration
Calibrator is recommended for calibration of this assays.

Linearity
This procedure is linear up to 1000 µg/dl

Note
Hemolysis interferes with the test as the hemoglobin present in the RBC's have a very high iron content.

References
Siedel, J., et. al. (1984) Clin Chem. 30: 975

Programming on	**CORALYZER 200**
Item	IRON
Full Name	IRON
Test Method	End Point
Base Information	
Unit	µg/dl
Filter	578 nm
Sub. Filter	670 nm
Decimal	xx.xx
High pollute	No
Reagent Blank	
Blank Medium	Reagent
Blank Value	0
Blank Low	0
Blank High	2
Sample	
Sample Volume	60
Dilution Times	0
Range Setup	
Reagent	
Rgt. 1 Volume	300
Rgt. 2 Volume	15
Linearity	1000
Read data for check	
Assistant Start	12
Assistant End	13
Range Low	0
Range High	2
Test Point Start	31
Test Point End	32
Standard	
Number of standard	1
Factor	1
Correct Factor	1
Standard Cup	User Defined
Conc.	See Calibrator

Manufactured by :
Coral Clinical Systems
A Division of Tulip Diagnostics (P) Ltd.
Gitanjali, Dr. Antonio Do Rego Bagh,
Bambolim Complex P.O. GOA - 403 202, INDIA

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