CORALYZER
System Pack

Calcium Kit

(Arsenazo III Method)

For the determination of Calcium in serum or plasma.
(For Invitro Diagnostic Use Only)

Summary
Calcium, in the body, is found mainly in the bones (approximately 99%). In serum calcium exists equally in a free ionised form and in a bound form (with albumin). Hence a decrease in Albumin causes lower Calcium levels and vice versa. The levels of Calcium in serum depend on the parathyroid hormone. Increased Calcium levels are found in bone tumours, hyperparathyroidism. Decreased levels are found in hypoparathyroidism, renal failure, rickets, Vitamin D deficiency and pancreatitis.

Principle
Calcium combines specifically with Arsenazo III at a neutral pH to form a blue purple coloured complex. Intensity of the colour formed is directly proportional to the amount of calcium present in the sample.

Calcium + Arsenazo III → **Blue Purple coloured complex**

Normal reference values
Serum / Plasma : 8.7 - 11.0 mg/dl

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

Contents	**40 ml**	**240 ml**
L1 : Calcium Reagent	1 x 40 ml	6 x 40 ml

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

Reagent preparation
Reagents are ready to use. Protect from bright light.

Sample material
Serum / Heparinized plasma. Calcium is reported to be stable in serum for 7 days at 2 - 8°C.

Calibration
Calibrator is recommended for calibration of this assay.

Linearity
This procedure is linear upto 15 mg/dl.

Note
As calcium is a very widely distributed ion, care should be taken to avoid any contamination.
Chelating agents such as EDTA, present even in traces, prevent the formation of the colour complex, hence necessary care should be taken during the assay.

References
Smith, H.G. Jr. et al, (1979), Biochem. 18: 5067.
Clinical Chemistry, Principles, Procedures, Correlations, Michael L. Bishop et.al., 5th Edition.

Programming on	**CORALYZER 100/200**
Item	CA (AIII)
Full Name	CALCIUM (AIII)
Test Method	End Point
Base Information	
Unit	mg/dl
Filter	620 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	3
Dilution Times	1
Range Setup	
Reagent	
Rgt. 1 Volume	300
Rgt. 2 Volume	0
Linearity	15
Read data for check	
Assistant Start	NONE
Assistant End	NONE
Range Low	0
Range High	2
Test Point Start	17
Test Point End	18
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.
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CAL2(C)/012 1/VER-01