CORALYZER
System Pack

Calcium Kit

(OCPC 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 in an alkaline medium combines with o-Cresolphthalein Complexone to form a purple coloured complex. Intensity of the colour formed is directly proportional to the amount of calcium present in the sample.

Calcium + OCPC ⟶ **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

Coralyzer 100 System Packs	**40 ml**	**60 ml**	**240 ml**
L1 : Buffer Reagent	1x 20 ml	30 ml	4 x 30 ml
L2 : Colour Reagent	1x 20 ml	30 ml	4 x 30 ml

Coralyzer 200 System Packs	**40 ml**	**240 ml**
L1 : Buffer Reagent	1x 20 ml	3 x 40 ml
L2 : Colour Reagent	1x 20 ml	3 x 40 ml

Storage / stability
Contents are stable at 2 - 8^{0}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^{0}C.

Calibration
Calibrator is recommended for calibration of this assay.

Linearity
This procedure is linear upto 18 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
Gitelman, H.J., (1967), Anal. Biochem. 18 : 521
Bagainski, E.S., (1973), Clin. Chem. Acta. 46 : 46

Programming on	**CORALYZER 100/200**
Item	CAL (OCPC)
Full Name	CALCIUM
Test Method	End Point
Base Information	
Unit	mg/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	1
Sample	
Sample Volume	6
Dilution Times	1
Range Setup	
Reagent	
Rgt. 1 Volume	150
Rgt. 2 Volume	150
Linearity	18
Read data for check	
Assistant Start	NONE
Assistant End	NONE
Range Low	0
Range High	2
Test Point Start	32
Test Point End	33
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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