



Modern Diagnostic Center Pvt. Ltd.  
Narayan Gopal Chowk, Kathmandu, Nepal

Certificate no : MLS -007

Issue Date: 24-01-2024

Expiry Date: 23-01-2027

Scope of Accreditation

1. Biochemistry and Immunology

Sr. No.	Materials examined/ tested	Specific Test / examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection	CV% ( $\pm$ )
1	SERUM	ALBUMIN	Bromocresol Green/ RANDOX IMOLA	2.20 - 50.6 g/L	4.1
2	SERUM	ALP	DEA/ RANDOX IMOLA	18.0 – 843 U/L	12.5
3	SERUM	ALT	Alanine Aminotransferase IFCC/ RANDOX IMOLA	9.70 – 3920 U/L	14.1
4	SERUM	AST	Aspartate Aminotransferase IFCC/ RANDOX IMOLA	7.2 – 625 U/L	11.6
5	SERUM	CALCIUM	Arsenazo III/ RANDOX IMOLA	0.36 - 17.24 mg/dL	8.6
6	SERUM	CHOLESTEROL	Enzymatic Endpoint/ RANDOX IMOLA	33.4-640 mg/dL	6.4
7	SERUM	CREATININE	Enzymatic UV/ RANDOX IMOLA	11.4–2460 $\mu$ mol/L	11.8
8	SERUM	DIRECT BILIRUBIN	Diazo Method / RANDOX IMOLA	1.42 - 137 $\mu$ mol/L	6.7
9	SERUM	GGT	Gamma Glutamyl transferase IFCC/ RANDOX IMOLA	7.60 - 1285 U/L	12.5
10	PLASMA	GLUCOSE	Hexokinase/ RANDOX IMOLA	0.662-35.5 mg/dL	4.3
11	SERUM	HDL CHOLESTEROL	Direct clearance/ RANDOX IMOLA	7.30 -144 mg/dL	4.1
12	SERUM	IRON	End point ferrozine iron RANDOX IMOLA	2.00–197 $\mu$ mol/L	3.7
13	SERUM	LDL CHOLESTEROL	Calculated		Calculated
14	SERUM	PHOSPHORUS	UV method/ RANDOX IMOLA	0.144 – 8.13 mmol/L	6.2

15	SERUM	TIBC	Ferrous iron standard (Indirectly from UIBC) / RANDOX IMOLA	40 - 683 µg/dL	19
16	SERUM	TOTAL BILIRUBIN	Diazo Method / RANDOX IMOLA	1.50 - 496 µmol/L	9.6
17	SERUM	TOTAL PROTEIN	Biuret/ RANDOX IMOLA	2.65 - 140 g/L	6.8
18	SERUM	TRIGLYCERIDES	GPO-PAP / RANDOX IMOLA	11.9 -1124 mg/dL	7.2
19	SERUM	UREA	Enzymatic kinetic/ RANDOX IMOLA	0.510-50.5 mmol/L	7.1
20	SERUM	URIC ACID	Enzymatic / RANDOX IMOLA	2.08 –13.75 µmol/L	4.1

## 2. Immunoassay

Sr. No.	Materials examined/ tested	Specific Test / examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection	CV% (±)
21	SERUM	AFP	Sandwich- CLIA SIEMENS CP	1.7-1000 ng/mL	2.9
22	SERUM	BETA HCG	Sandwich- CLIA/ SIEMENS CP	2.0 -1000 mIU/mL	1.8
23	SERUM	CEA	Sandwich- CLIA SIEMENS CP	0.5-100 ng/mL	4.8
24	SERUM	FERRITIN	Sandwich- CLIA SIEMENS CP	0.5-1650 ng/mL	7.9
25	SERUM	FSH	Sandwich- CLIA SIEMENS CP	0.3-200 mIU/mL	3.5
26	SERUM	FT <sub>3</sub>	Sandwich- CLIA SIEMENS /CP	0.2-20 pg/mL	5.7
27	SERUM	FT <sub>4</sub>	Sandwich- CLIA SIEMENS CP	0.1-12.0 ng/dL	6.9
28	SERUM	LH	Sandwich- CLIA SIEMENS /CP	0.07-200 mIU/mL	1.1
29	SERUM	PROLACTIN	Sandwich- CLIA SIEMENS CP	0.3 - 200 ng/mL	5.3
30	SERUM	PSA	Sandwich- CLIA SIEMENS CP	0.1-100 ng/dL	4.2
31	SERUM	T <sub>3</sub>	Competitive CLIA / SIEMENS CP	0.1 - 8.0 ng/mL	8.7
32	SERUM	T <sub>4</sub>	Competitive- CLIA SIEMENS CP	0.3 -8.0 µg/dL	0.9
33	SERUM	TSH	Sandwich- CLIA SIEMENS CP	0.010-150 mIU/L	6.3
34	SERUM	VITAMIN B <sub>12</sub>	Competitive CLIA SIEMENS CP	12.5-2000 pg/mL	5.7

### 3. Hematology

Sr. No.	Materials examined/ tested	Specific tests/ examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection	MU (±)
1	EDTA Blood	WBC Total	DC Impedance/ Sysmex Xn-350	0-100*10 <sup>3</sup> /μl	2.0
2	EDTA Blood	Neutrophil	Fluorescent flow cytometry/ Sysmex Xn-350	0-100%	2.4
3	EDTA Blood	Lymphocyte	Fluorescent flow cytometry/ Sysmex Xn-350	0-100%	2.1
4	EDTA Blood	Monocyte	Fluorescent flow cytometry/ Sysmex Xn-350	0-100%	4.4
5	EDTA Blood	Eosinophil	Fluorescent flow cytometry/ Sysmex Xn-350	0-100%	7.8
6	EDTA Blood	Basophil	Fluorescent flow cytometry/ Sysmex Xn-550	0-100%	6.6
7	EDTA Blood	Platelet	DC Impedance/ Sysmex Xn-350	0-2000*10 <sup>3</sup> /μl	3.6
8	EDTA Blood	Mean Platelet volume	DC Impedance/ Sysmex Xn-350	NA	1.4
9	EDTA Blood	Hemoglobin	Photometric / Non cyanide SLS	1-25 g/dl	0.7
10	EDTA Blood	RBC	DC Impedance	0 - 8*10 <sup>4</sup> /μl	0.7
11	EDTA Blood	HCT	Cumulative Pulse height detection method	0.0-75%	0.6
12	EDTA Blood	MCV	Calculation	NA	0.4
13	EDTA Blood	MCH	Calculation	NA	0.8

14	EDTA Blood	MCHC	Calculation	NA	0.8
15	EDTA Blood	Red Distribution width (CV%)	Calculation	NA	0.5
16	EDTA Blood	Reticulocyte count /Supracital stain (New Methylene blue)	Staining and Microscopy	Interpretative	NA
17	EDTA Blood	Peripheral Blood Smear / Wright Stain	Staining and Microscopy	Interpretative	NA

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