



Samyak Diagnostic Laboratory Pvt. Ltd

Jawalakhel, Lalitpur, Nepal

Discipline: **CLINICAL BIO-CHEMISTRY, CLINICAL PATHOLOGY,
IMMUNOLOGY and HAEMATOLOGY**

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Certificate Number : MLS-001/03

Samyak Diagnostic Pvt. Ltd. Scope of Accreditation

The clinical laboratories under the scope of AERSSC accreditation (ISO 15189:2012) are:

1. Clinical Biochemistry

SI No.	Materials or items examined/tested	Specific tests/examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection
1.	Serum/ Plasma	Albumin	Bromocresol Green	0.32 – 30 g/dl
2.	Serum	ALT	Tris buffer without P5P 37°C	9.70 – 3920 U/L
3.	Serum	Amylase	PNP G7 37°C	10.9 -4357 U/L
4.	Serum	AST	Tris buffer without P5P 37°C	7.2 – 3750 U/L
5.	Serum	Calcium	Arsenazo III	0.36 – 25.8 mg/dl
6.	Serum	HDL	Direct Clearance	7.30 – 216 mg/dl
7.	Serum	LDL	Calculative	NA
8.	Serum	Cholesterol	Oxidase	33.4 – 6407 mg/dl
9.	Serum	CK	CK-NAC IFCC 37°C	19.4 -10101 U/L
10.	Serum	Creatinine	Alkaline picrate	0.29 -32.5 mg/dl
11.	Serum	GGT	GGT-Carboxy- 4nitroanilide (IFCC) 37°C	7.60 – 3212 U/L

12.	Serum	Glucose	GOD-PAP	9.73 -5290 mg/dl
13.	Serum	Iron	Colorimetric without ppt.	2.00 – 394 µmol/L
14.	Serum	LDH	L-P IFCC 37°C	8.80 – 846 U/L
15.	Serum	Magnesium	Xylidyl blue	0.506 – 8.01 mg/dl
16.	Serum	Phosphorous	DEA buffer 37°C (UV)	0.00 – 46.1 mg/dl
17.	Serum	Potassium	ISE	1 – 10 mmol/L
18.	Serum	Total protein	Biuret reaction endpoint	0.505 – 12.4 g/dl
19.	Serum	Sodium	ISE	100 – 200 mmol/L
20.	Serum	Triglyceride	Lipase/GPO-PAP	11.9 – 1124 mg/dl
21.	Serum	Urea	Urease kinetic	0 – 760 mg/dl
22.	Serum	Uric acid	Enzymatic colorimetric	0 – 504 mg/dl
23.	Serum	ALP	DEA buffer 37°C	29.2-1668 U/L
24.	Serum	Total Bilirubin	Diazo with sulphanilic acid	0 – 29 mg/dl
25.	Whole blood	HbA1c	HPLC	3.8 – 18.5 %
26.	Urine	Microalbumin	Immunonephlometry	10-220 mg/dl
27.	Serum	Ceruloplasmin	Immunonephlometry	0.1-2.5 g/L
28.	Serum	Procalcitonin	Immunoassay	0.1-50 ng/ml
29.	Serum	NT-ProBNP	Immunoassay	100-35000pg/ml
30.	Serum	Hs- CRP	Immunoassay	0.5-200 mg/L
31.	Whole blood	Lead Levels	Electrochemical principle	3.3-65 µg/dl
32.	Serum	TIBC	Colorimetric method	40-683 µg/dl
33.	Serum	Serum Protein Electrophoresis	Agarose Gel Electrophoresis	NA
34.	Serum/whole blood	Troponin I	Membrane based Immunoassay	NA

2. Immunology

SI No.	Materials or items examined/ tested	Specific tests/ examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection
1.	Serum	FT3	Competitive immunoassay	0.2-20 pg/ml
2.	Serum	FT4	Competitive immunoassay	0.1-12 ng/dl
3.	Serum	TSH	Sandwich immunoassay	0.010-150 µIU/ml
4.	Serum	FSH	Sandwich immunoassay	0.3-200 mIU/ml
5.	Serum	LH	Sandwich immunoassay	0.07-200 mIU/ml
6.	Serum	PRL	Sandwich immunoassay	0.3-200 ng/ml
7.	Serum	Progesterone	Competitive immunoassay	0.21-60 ng/ml
8.	Serum	Total Beta HCG	Two site sandwich immunoassay	2- 1000 mIU/ml
9.	Serum	Testosterone Total	Competitive immunoassay	10-1500 ng/dl
10.	Serum	AFP	Two site sandwich immunoassay	1.3- 1000 ng/ml
11.	Serum	CEA	Two site sandwich immunoassay	0.5-100 ng/ml

12.	Serum	PSA	Two site sandwich immunoassay	0.01-100 ng/ml
13.	Serum	Ferritin	Two site sandwich immunoassay	0.5-1650 ng/ml
14.	Serum	Folate	Competitive immunoassay	0.35-24 ng/ml
15.	Serum	Vitamin B12	Competitive immunoassay	45-2000 pg/ml
16.	Serum	Cortisol	Competitive immunoassay	0.20-75 ng/dl
17.	Serum	CARB	Competitive immunoassay	0.25-18 µg/ml
18.	Serum	PHTN	Competitive immunoassay	0.5-40 µg/ml
19.	Serum	Valproic acid	Competitive immunoassay	1-150 µg/ml
20.	Serum	Vancomycin	Competitive immunoassay	0.67-90 µg/ml
21.	Serum	IgE	Two site sandwich immunoassay	1.5-3000 IU/ml
22.	Serum	E2	Competitive immunoassay	11.8-3000 pg/ml
23.	Serum	C3	Immunonephlometry	0.2-4.5 g/l
24.	Serum	C4	Immunonephlometry	0.07-2.0 g/l
25.	Serum	IgG	Immunonephlometry	2-25 g/l
26.	Serum	IgM	Immunonephlometry	0.25-4.5 g/l
27.	Serum	IgA	Immunonephlometry	0.25-5.0 g/l
28.	Serum	C-ANCA	Immunoblot	NA
29.	Serum	P-ANCA	Immunoblot	NA
30.	Serum	GBM	Immunoblot	NA
31.	Serum	ANA Panel-Immunoblot	Immunoblot	NA
32.	Serum	ANA	Indirect Immunofluorescence	NA
33.	Serum	ds-DNA	Indirect Immunofluorescence	NA
34.	Serum	Liver IgG	Immunoblot	NA
35.	Serum	Anti-CCP	Immunoassay	NA
36.	Urine	Pregnancy Test	Immunochromatography	NA
37.	Serum	Vitamin D, 25 Hydroxy	Competitive immunoassay	4.2-150 ng/ml
38.	Serum	CA 125	Two site sandwich immunoassay	2-600 U/ml
39.	Serum	CA 15-3	Two site sandwich immunoassay	0.5-200 U/ml
40.	Serum	CA 19-9	Two site sandwich immunoassay	1.2-700 U/ml

3. Hematology

SI No.	Materials or items examined/ tested	Specific tests/ examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection
1.	Whole blood	WBC	Light scatter by laser	0-299 X 10 ³ /µL
2.	Whole blood	NE%	Light scatter by laser	0- 99.9 %
3.	Whole blood	LY%	Light scatter by laser	0- 99.9 %
4.	Whole blood	MO%	Light scatter by laser	0- 99.9 %
5.	Whole blood	EO%	Light scatter by laser	0- 99.9 %
6.	Whole blood	BA%	Light scatter by laser	0- 99.9 %
7.	Whole blood	RBC	Electrical resistance detection	0- 14.9 X 10 ⁶ /µL
8.	Whole blood	HGB	Surfactant method	0- 29.9 g/dl
9.	Whole blood	HCT	Histogram calculation	0- 99.9 %

10.	Whole blood	MCV	Histogram calculation	20- 199 fl
11.	Whole blood	MCH	Histogram calculation	10- 50 pg
12.	Whole blood	MCHC	Histogram calculation	10- 50 g/dl
13.	Whole blood	RDW-CV	Histogram calculation	0- 50%
14.	Whole blood	RDW-SD	Histogram calculation	-
15.	Whole blood	PLT	Electrical resistance detection	0- 1490 X 10 ³ /μL
16.	Whole blood	PCT	Histogram calculation	0- 2.9%
17.	Whole blood	MPV	Histogram calculation	0- 20.0 fl
18.	Whole blood	PDW	Histogram calculation	0- 50%
19.	Whole blood	AEC	Manual	0-2222 /μL
20.	Whole blood	Sickling test	Manual	-
21.	Citrated plasma	D-dimer	Particle enhanced nephelometry	0.1-7.5 mg/l
22.	Whole blood	G6PD	Biosensor analyser	0-300 U/dl

4. Clinical Pathology

SI No.	Materials or items examined/ tested	Specific tests/ examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection
1.	Urine	Routine & Microscopic	Manual method	NA
2.		Occult Blood	Benzidine Method	Traces to ++++
3.	Stool	Routine & Microscopic	Microscopy	NA
4.		Occult Blood	Benzidine Method	Traces to ++++
5.		Reducing Substances	Benedict Method	Traces to ++++
6.	Urine	Drug of Abuse (DOA)	Competitive Immunochemistry	NA

5. Serology

SI No.	Materials or items examined/tested	Specific tests/examination performed	Specification, standard (method) or technique used	Range of testing/ Limit of detection
1.	Serum	Rheumatoid Factor (RF)	Particle enhanced Immunonephelometry	20-300 IU/ml
2.	Serum	CRP	Particle enhanced Immunonephelometry	2.0-150 mg/l
3.	Serum	Anti-Streptolysin O	Particle enhanced Immunonephelometry	50-600 IU/ml
4.	Serum	HIV 1 & 2	Immunoassay	NA
5.	Serum	HbsAg	Sandwich Immunoassay	NA
6.	Serum	Anti- HCV	Immunoassay	NA

7.	Serum	HAV IgM	Immunochromatography	NA
8.	Serum	HEV IgM	Immunochromatography	NA
9.	Urine	Legionella Ag	Sandwich Immunoassay	NA
10.	Whole Blood	Malaria Ag	Immunoassay	NA
11.	Serum	Dengue NS1 Ag, IgG, IgM Ab	Immunochromatography	NA
12.	Serum	Salmonella typhi Ag	Immunochromatography	NA
13.	Serum	Leishmania Ab	Membrane base Immunoassay	NA
14.	Serum	TB IgG/ IgM	Lateral flow chromatography	NA
15.	Urine	Chlymadia Ag	Immunochromatography	NA
16.	Serum	Leptospira IgM	Immunochromatography	NA
17.	Stool	H.pylori Ag	Immunochromatography	NA
18.	Serum	H.pylori Ab	Immunochromatography	NA
19.	Serum	Syphilis Ab	Immunochromatography	NA
20.	Serum	HAV IgG	Immunochromatography	NA

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