ChemScreen Laboratory Services
Scope of Test

CHEMISTRY

#	PRODUCT /MATERIAL	TEST	METHODS	EQUIPMENT	REFERENCE RANGE
1.	Plasma	Alanine Transaminase	Absorbance photometry	Integra 400 / Cobas C111	3 – 48 U/L
2.	Plasma	Albumin	Absorbance photometry	Integra 400 / Cobas C111	35 – 54 g/L
3.	Plasma	Alkaline Phosphatase	Absorbance photometry	Integra 400 / Cobas C111	36 – 126 U/L
4.	Plasma	Aspartate Transaminase	Absorbance photometry	Integra 400 / Cobas C111	12 – 45 U/L
5.	Plasma	Total Bilirubin	Absorbance photometry	Integra 400 / Cobas C111	6 – 22 umol/L
6.	Plasma	Calcium	Absorbance photometry	Integra 400 / Cobas C111	2.10 – 2.51 mmol/L
7.	Plasma	Chloride	Ion selective electrode potentiometry	Integra 400 / Easylyte	98 – 107 mmol/L
8.	Plasma	Cholesterol	Absorbance photometry	Integra 400 / Cobas C111	3.26 – 5.19 mmol/L
9.	Plasma	Cholesterol HDL	Absorbance photometry	Integra 400 / Cobas C111	0.75 – 1.87 mmol/L
10.	Plasma	Cholesterol LDL	Absorbance photometry	Integra 400 / Cobas C111	Desirable <3.36 mmol/L Borderline 3.36-4.11 mmol/L High >4.43 mmol/L
11.	Plasma	CO2	Absorbance photometry	Integra 400	18 – 27 mmol/L
12.	Plasma	Creatinine Kinase	Absorbance photometry	Integra 400	Male 64-644 mmol/L Female 48-376 mmol/L

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13.	Plasma	Creatinine	Absorbance photometry	Integra 400 / Cobas C111	male 67-121 mmol/L female 55-94 umol/l
14.	Plasma	Gamma Glutamyltransferase	Absorbance photometry	Integra 400 / Cobas C111	13 – 67 U/L
15.	Plasma	Glucose	Absorbance photometry	Integra 400 / Cobas C111	Fasting 3.5-6.1 mmol/L Random 4.5-10.0 mmol/L
16.	Plasma	Iron	Absorbance photometry	Integra 400	37 – 170 ug/dL
17.	Plasma	Lactate Dehydrogenase	Absorbance photometry	Integra 400/	94 -259 U/L
18.	Plasma	Magnesium	Absorbance photometry	Integra 400 / Cobas C111	0.66 – 0.95 mmol/L
19.	Plasma	Phosphorus	Absorbance photometry	Integra 400 / Cobas C111	0.57 – 1.59 mmol/L
20.	Plasma	Potassium	Ion selective electrode potentiometry	Integra 400 / Easylyte	3.1 – 4.4 mmol/L
21.	Plasma	Total Protein	Absorbance photometry	Integra 400 / Cobas C111	62 – 80 g/L
22.	Plasma	Sodium	Ion selective electrode potentiometry	Integra 400 / Easylyte	138 – 144 mmol/L

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23.	Plasma	Triglyceride	Absorbance photometry	Integra 400 / Cobas C111	0.60 – 3.35 mmol/L
24.	Plasma	Urea	Absorbance photometry	Integra 400 / Cobas C111	2.5 – 6.5 mmol/L
25.	Plasma	Uric acid	Absorbance photometry	Integra 400 / Cobas C111	0.18 – 0.46 mmol/L
26.	Plasma	TIBC	Absorbance photometry	Integra 400	245 – 400 ug/dL
27.	Plasma	Lithium	Ion selective electrode	Easy-lyte	therapeutic 0.6-1.2 mmol/ L potentially toxic 1.5 mmol/L severe toxicity >2.5 mmol/L
28.	Serum	Thyroid Stimulating Hormone	Chemiluminescence	Immulite 1000	0.32 – 5.0 mIU/mL
29.	Serum	Thyroxine Free (FT4)	Chemiluminescence	Immulite 1000	10 – 24 pmol/L
30.	Serum	Triiodothyronine Total (T3)	Chemiluminescence	Immulite 1000	1.2 – 2.7 nmol/L
31.	Serum	Cortisol	Chemiluminescence	Immulite 1000	a.m 139-690 nmol/L p.m ½ of a.m nmol/L
32.	Serum	Ferritin	Chemiluminescence	Immulite 1000	28-397 ng/mL
33.	Serum	CA 125	Chemiluminescence	Immulite 1000	0 – 20 IU/mL
34.	Serum	CA 15-3	Chemiluminescence	Immulite 1000	premenopausal 0 - 36.5 IU/mL post-menopausal 0 - 46.8 IU/mL
35.	Serum	PSA	Chemiluminescence	Immulite 1000	0 - 4 ng/mL

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HAEMATOLOGY					
#	PRODUCT /MATERIAL	TEST	METHODS	EQUIPMENT	REFERENCE RANGE
36.	Whole blood	White blood cell count	Double hydrodynamic sequential system	Horiba Yumizen H500	4.00 – 11.0 10^3 / µL
37.	Whole blood	Red blood cell count	Double hydrodynamic sequential system	Horiba Yumizen H500	Male 4.20 – 5.60 10^6 / µL Female 3.90 – 5.20 10^6 / µL
38.	Whole blood	Haemoglobin	Double hydrodynamic sequential system	Horiba Yumizen H500	Male 14.0 – 18.0 g/dL Female 11.5 – 16.0 g/dL
39.	Whole blood	Haematocrit	Double hydrodynamic sequential system	Horiba Yumizen H500	Male 40 – 50 % Female 35 – 45 %
40.	Whole blood	Mean Corpuscular volume	Double hydrodynamic sequential system	Horiba Yumizen H500	80 - 90 fL
41.	Whole blood	Mean Corpuscular Haemoglobin	Double hydrodynamic sequential system	Horiba Yumizen H500	26 - 34 pg
42.	Whole blood	Mean Corpuscular Haemoglobin concentration	Double hydrodynamic sequential system	Horiba Yumizen H500	33 - 36 g/dL
43.	Whole blood	Red cell distribution width SD	Double hydrodynamic sequential system	Horiba Yumizen H500	11 - 16 fL
44.	Whole blood	Platelets	Double hydrodynamic sequential system	Horiba Yumizen H500	140 - 400 10^3/ µL

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#	PRODUCT /MATERIAL	TEST	METHODS	EQUIPMENT	REFERENCE RANGE
45.	Citrated plasma	Prothrombin Time	Magnetic bead technology	Coag. Analyser	11 – 15 secs
46.	Citrated plasma	Partial Thromboplastin Time	Magnetic bead technology	Coag. Analyser	23 – 39 secs
47.	Citrated plasma	I.N.R	Calculated	Coag. Analyser	
URINALYSIS					
48.	Urine	Protein	Strip test	Siemens Clinitek Status+	< 15 mg/dl
49.	Urine	pH	Strip test	Siemens Clinitek Status+	4.6 – 8.0
50.	Urine	Haemoglobin/ Blood erythrocyte	Strip test	Siemens Clinitek Status+	< 0.1010 mg/dl
51.	Urine	Specific Gravity	Strip test	Siemens Clinitek Status+	1.001 – 1.035
52.	Urine	Ketones	Strip test	Siemens Clinitek Status+	< 2.0 -mg/dl
53.	Urine	Bilirubin	Strip test	Siemens Clinitek Status+	< 0.4 mg/dl
54.	Urine	Glucose	Strip test	Siemens Clinitek Status+	< 30 mg/dl
55.	Urine	Leukocytes Esterase	Strip test	Siemens Clinitek Status+	< 5 leu/ml
56.	Urine	Nitrite	Strip test	Siemens Clinitek Status+	< 0.075 mg/dl
57.	Urine	Urobilinogen	Strip test	Siemens Clinitek Status+	< 1.0 mg/dl
58.	Urine	Protein	Strip test	Siemens Clinitek Status+	< 15 mg/dl

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MICROBIOLOGY					
#	PRODUCT /MATERIAL	TEST	METHODS	EQUIPMENT	REFERENCE RANGE
59.	Body fluids	Gram Stain	Manual methods	Microscope	Not Applicable
60.	Genital swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
61.	Body fluids	Identification of pathogenic microorganism	Culture manually by Standard methods / Wet mount	Incubator & Microscope	Not Applicable
62.	Blood	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
63.	Ear swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
64.	Endocervical swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
65.	Eye swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
66.	Fluid microscopy	Identification of microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
67.	HVS swab	Identification of microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
68.	Nasal swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable

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69.	Stool	Identification of pathogenic microorganism Identification of Ova, Cyst, Parasites	Culture manually by Standard methods Formal saline method	Incubator, Microscope And Centrifuge	Not Applicable
70.	Pharyngeal swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
71.	Urethral swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
72.	Urine culture	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
73.	Wound swab	Identification of pathogenic microorganism	Culture manually by Standard methods	Incubator & Microscope	Not Applicable
74.	Pathogenic microorganisms	Antimicrobial testing	Disc diffusion method	Incubator & Caliper	CLSI Standard