


## Schedule

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<b>LABORATORY LOCATION:</b> (PERMANENT LABORATORY) 	Premier Integrated Labs Sdn. Bhd. (Cheras Branch) Basement, Pantai Hospital Cheras 1, Jalan 1/96 A, Taman cheras Makmur, 56100 Kuala Lumpur. , 56100, WILAYAH PERSEKUTUAN KUALA LUMPUR MALAYSIA
<b>ACCREDITED SINCE :</b>	19 MARCH 2025
<b>FIELD(S) OF MEDICAL TESTING :</b>	CHEMICAL PATHOLOGY HAEMATOLOGY

The standard used for assessment of this laboratory is MS ISO 15189:2022 (ISO 15189:2022, IDT).

A medical laboratory's fulfilment of the requirements of ISO 15189 means the laboratory meets both the technical competence requirements and the management system requirements necessary for it to consistently deliver technically valid test results. The management system requirements in ISO 15189 are written in language relevant to a medical laboratory's operations. Medical laboratories that implement ISO 15189 operate generally in accordance with the principles of ISO 9001. (See Joint IAF-ILAC-ISO Communiqué, November 2021)

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<b>CENTRAL LOCATION</b>	Premier Integrated Labs Sdn. Bhd. (Cheras Branch) Basement, Pantai Hospital Cheras 1, Jalan 1/96 A, Taman cheras Makmur, 56100 Kuala Lumpur. , 56100, Wilayah Persekutuan Kuala Lumpur
<b>FIELD(S) OF MEDICAL TESTING :</b>	CHEMICAL PATHOLOGY, HAEMATOLOGY

**SCOPE OF MEDICAL TESTING : CHEMICAL PATHOLOGY**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Plasma	APTT	Turbodensitometric measuring method using
	APTT	Sysmex CA 104 Analyzer as documented in
	APTT	Haematology Procedure Manual chapter
	APTT	YP151
	PT	Turbodensitometric Measuring method using
	PT	Sysmex CA 104 Analyzer as documented in
	PT	Haematology Procedure Manual chapter
	PT	YP152
	Prothrombin	Viscosity-based detection / STA Compact a
	Time (PT)	Analyzer as documented in
	Activated Partial	None
	Thromboplastin	None
	Time (APTT)	b Turbidimetric immunoassay / ACL TOP CTS 500
	iii Fibrinogen	as documented in
	(Clauss	None
	Technique)	None
	Factor Assays Iv	None
	(Based on	None
	APTT)	None
	Factor Assays Vv	None
	(Based on PT)	None
	Collagen Binding	ELISA method / TECAN Sunrise Microplate Reader
	Assay (CBA)	as documented in
	None	HA/HAEM/MRKH/RCH/W118
	Factor Inhibitors	Coagulation method / ACL TOP CTS 500 as
	(Bethesda Unit)	documented in

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None	HA/HAEM/MRKH/RCH/WI-09
Lupus Anticoagulant	Viscosity-based detection / STA Compact Analyzer
(Screening test)	as documented in
None	HA/HAEM/MRKH/RCH/WI-02
Anti-Xa (Low	Viscosity-based detection / STA Compact Analyzer
Molecular Weight	as documented in
Heparin)	HA/HAEM/MRKH/RCH/WI-02
Lupus Anticoagulant	Viscosity-based detection / STA Compact Analyzer
(Confirmation Test)	as documented in
None	HA/HAEM/MRKH/RCH/WI-11
Von-Williebrand	Turbidimetric immunoassay / ACL TOP CTS 500 as
(VWF) Assays	documented in
None	HA/HAEM/MRKH/RCH/WI-22
Glucose	Automation / Cobas 6000 analyzer series module C501 as documented in MKAI/SP/BKM/WI-01
Activated Partial	Clotting method by Sysmex CA104 as
Thromboplastin Time	documented in Haematology Procedure Manual
(APTT)	Chapter YP151
Prothrombin Time (PT)	Clotting method by Sysmex CA104 as
None	documented in Haematology Procedure Manual
None	Chapter YP152
INR	Photo-optical clot reaction/CS2500 (2) as documented in PT/INR SOP (GPQD/HAE/SOP-33)
APTT	Photo-optical clot reaction/CS2500 (2) as documented in APTT SOP (GPQD/HAE/SOP-37)
Fibrinogen	Photo-optical clot reaction/CS2500 (2) as documented
Fibrinogen	in Fibrinogen SOP (GPQD/HAE/SOP-35)
Lupus Anticoagulant	Photo-optical clot reaction/CS2500 (2) as documented
Lupus Anticoagulant	in SOP (GPQD/HAE/SOP-1)
Antithrombin III	Photo-optical clot reaction/CS2500 (2) as documented

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Antithrombin III	in Antithrombin II] GPQD/HAE/SOP-2
Protein C	Photo-optical clot reaction/CS2500 (2) as documented
Protein C	in Protein C GPQD/HAE/SOP-4
Protein S	Photo-optical clot reaction/CS2500 (2) as documented
Protein S	in Protein S GPQD/HAE/SOP-3
Factor V Leiden	Photo-optical clot reaction/CS2500 (2) as documented
Mutation	in Factor V Leiden GPQD/HAE/SOP-6
HIV-1 RNA Quantitative	Real-Time PCR/Alinity M System (1 as
HIV-1 RNA Quantitative	documented in SOP (GPQD/MOL/SOP-19
HBV DNA Quantitative	Real-Time PCR/Alinity M System (1 as
HBV DNA Quantitative	documented in SOP (GPQD/MOL/SOP-19
HCV RNA Quantitative	Real-Time PCR/Alinity M System (1 as
HCV RNA Quantitative	documented in SOP (GPQD/MOL/SOP-19
HCV RNA	Real-Time PCR/Alinity M System (1 as
HCV RNA	documented in SOP (GPQD/MOL/SOP-19
Iron	Photometry hexokinase/Cobas c311 as
Iron	documented electronically in Roche COBAS
Iron	LINK/COBAS c311
Glucose	Photometry hexokinase/Cobas c311 as
Glucose	documented electronically in Roche COBAS
Glucose	LINK/COBAS c311
INR	Clotting scattered light detection method/Sysmex
APTT	Ca-660 as documented in GPQD/HAE-SSOP-
APTT	43/CA600 Operating Procedure
Blood Group	GPQD/HAE/SOP-47 and GPQD/HAE/SOP-48
DAT	Direct agglutination/Diamed Gel- card as

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DAT	documented in GPQD/HAE/SOP-45 and
DAT	GPQD/HAE/SOP-48
Antibody Screen	Agglutination with Panel cells/ Diamed Gel-card as
Antibody Screen	documented in GPQD/HAE/SOP-53 and
Antibody Screen	GPQD/HAE/SOP-48
Cross-match	Major cross match/ Diamed Gel-card as documented
Cross-match	in GPQD/HAE/SOP-46 and GPQD/HAE/SOP-48
Glucose	Colourimetric hexokinase/Cobas c501 as =
Glucose	documented electronically in Roche COBAS
Glucose	LINK/COBAS 6000
Lactate	Colourimetry Enzymatic/Cobas c501 as
Lactate	documented electronically in Roche COBAS
Lactate	LINK/COBAS 6000
INR	Electromagnetic sensor/CA104 as documented in
INR	ST art4 SOP (GPQD/HAE/SOP-42)
APTT	Electromagnetic sensor/CA 104 as documented in
APTT	ST art4 SOP (GPQD/HAE/SOP-42)
Glucose	Spectrophotometry/Cobas c311 as documented
Glucose	electronically in Roche C311
Procalcitonin	Immunoelectrochemiluminescence/Cobas e144 as
Procalcitonin	documented electronically in Roche COBAS
INR	Clotting method-turbo densitometric photo-optical
INR	measuring principle/Sysmex CA 104 as
INR	documented in (GPQD/HAE/SOP-42)
G6PD Screen	nan
G6PD Screen	Fluorescence Immunoassay as documented in D
D-Dimer	Dimer SOP (GPQD/HAE/SOP-36)
Blood Culture	9240) fluorescent method as documented in

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Blood Culture	SL/LAB/S3.1 and BD BACTEC 9240 Manual
HIV Genotypic Resistance -"	Polymerase Chain Reaction (PCR) and
Protease and Reverse	Population-based Genome Sequencing /
Transcriptase	Eppendorf Mastercycler X50s thermal cycler
Transcriptase	as documented in
Transcriptase	IMR/IDRC/VIRO/SOP/HIV/10
HIV Genotypic Resistance -"	Polymerase Chain Reaction (PCR) and
Integrase	Population-based Genome Sequencing /
Integrase	Eppendorf Mastercycler X50s thermal cycler
Integrase	as documented in
Integrase	IMR/IDRC/VIRO/SOP/HIV/11
Homocysteine (Total)	Documented in IMR/SDC/BC/SOP-4 / Agilent 1260 HPLC
Homocysteine (Total)	with Fluorescence Detector
Carnitine (Total & Free)	Enzymatic end-point as documented in
Carnitine (Total & Free)	IMR/SDC/BC/SOP-3/ Spectrophotometer
Glycosaminoglycans	Complex with Dimethylmethylene Blue (DMB)
(GAG) Quantitation	as documented in IMR/SDC/BC/SOP-5/ Spectrophotometer
GAG Separation	High Resolution Electrophoresis as
GAG Separation	documented in IMR/SDC/BC/SOP-6/ Multiphor
GAG Separation	II Electrophoresis System
Organic Acids	Derivatisation with BSTFA as documented in
Organic Acids	IMR/SDC/BC/SOP-9/GCMS Agilent 7890B
Orotic Acids	Reverse-phase Chromatography as
Orotic Acids	Documented in IMR/SDC/BC/SOP-10/ Agilent 1200 HPLC
Orotic Acids	with Diode Array Detector

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Coagulation:	Clotting (optical) Method/Sysmex CS1600 As documented in
Prothrombin time (PT)	HSNI/PAT/HM/TPM/VER3/2019/02 HSNI/PAT/HM/AK/VER3/2019/04
Activated Partial	HSNI/PAT/HM/TPM/VER3/2019/03
Thromboplastin Time (APTT)	HSNI/PAT/HM/AK/VER3/2019/04
Ammonia	GLDH ? UV on Beckman Coulter AU5800 as documented in HS/JP/W1 (CP;07)-024 Test on Beckman Coulter AU5800
Lactate	Enzymatic LOD-POD on Beckman Coulter AU5800 as documented in HS/JP/W1 (CP;07)- 024 Test on Beckman Coulter AU 5800
Mycophenolic Acid	EMIT on Viva E (Siemens) as documented in HS/JP/W1 (CP;07)- 014 Test on VIVA E (Siemens)
Prothrombin Time (PT)	Clotting Activity HS/JP/W1(HM:08)- 007
Activated Partial Thromboplastin Time (APTT)	Clotting Activity HS/JP/W1(HM:08)- 007
Fibrinogen Estimations (FIB)	Clotting Activity HS/JP/W1(HM:08)- 007
International Normalised Ratio (INR)	Clotting Activity HS/JP/W1(HM:08)- 007
D-Dimer Quantitative	Change in turbidity of a microparticle suspension measured by photometry
Coagulation Mixing Test: APTT/PT	Clotting Activity HS/JP/W1(HM:08)- 017
Ammonia	Glutamate Dehydrogenase as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Lactate (LacticAcid)	Lactic Acid to Pyruvate (L to P) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
PT/ INR	Mechanical clot detection
PT/ INR	Analyser: Stago Compact/ Max All methods and specifications as documented in HTPG/JP/HEM/AK-04
APTT	Mechanical clot detection

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Serum/plasma	APTT	Analyser: Stago Compact/ Max All methods and specifications as documented in HTPG/JP/HEM/AK-05
	Fibrinogen	Clauss method Analyser: Stago Compact/ Max All methods and specifications as documented in HTPG/JP/HEM/AK-06
	D-Dimer	Turbidimetry Analyser: Stago Compact/ Max All methods and specifications as documented in HTPG/JP/HEM/AK-07
	Glucose (Plasma)	Hexokinase Method. Analyzer Beckman Coulter AU680 (labelled as AU680-A and AU680-B) as documented in SASMEC@IIUM/PALM/INT- WI0203
	Alanine	Modified Wroblewski and LaDue, modified
	Aminotransferase (ALT)	IFCC, with P5P method using Dimension RXL
	Aminotransferase (ALT)	Max as documented in Biochemistry
	Aminotransferase (ALT)	Procedure Manual chapter CP010
	Albumin	Bromocresol Purple (BCP) dye binding method
	Albumin	using Dimension RXL Max as documented in
	Albumin	Biochemistry Procedure Manual chapter
	Albumin	CP015
	Alkaline Phosphatase	Bowers and McComb, IFCC standardization
	(ALP)	method using Dimension RXL Max as
	(ALP)	documented in Biochemistry Procedure
	(ALP)	Manual chapter CP020
	Amylase	Hydrolysis of CNPG3 method using Dimension
	Amylase	RXL Max as documented in Biochemistry
	Amylase	Procedure Manual chapter CP025
	Aspartate	Modified IFCC, with PSP method using
	aminotransferase (AST)	Dimension RXL Max as documented in

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aminotransferase (AST)	Biochemistry Procedure Manual chapter
aminotransferase (AST)	CP035
Bilirubin (Total)	Modified Diazo method using Dimension RXL
Bilirubin (Total)	Max as documented in Biochemistry
Bilirubin (Total)	Procedure Manual chapter CP135
Calcium	Modification of the calcium o-cresolphthalein
Calcium	complexone (OCPC) reaction method using
Calcium	Dimension RXL Max as documented in
Calcium	Biochemistry Procedure Manual chapter
Calcium	CP040
Chloride	Indirect Integrated Multisensor Technology
Chloride	(IMT) method using Dimension RXL Max as
Chloride	documented in Biochemistry Procedure
Chloride	Manual chapter CP075
Cholesterol (Total)	Enzymatic cholesterol oxidase, esterase,
Cholesterol (Total)	peroxidase method using Dimension RXL Max
Cholesterol (Total)	as documented in Biochemistry Procedure
Cholesterol (Total)	Manual chapter CP050
Creatine Kinase MB	Modified IFCC CK Primary Reference method
(CKMB)	using Dimension RXL Max as documented in
(CKMB)	Biochemistry Procedure Manual chapter
Creatine Kinase (CK)	IFCC Primary Reference method using
Creatine Kinase (CK)	Dimension RXL Max as documented in
Creatine Kinase (CK)	Biochemistry Procedure Manual chapter
Creatine Kinase (CK)	CP055
Creatinine	Kinetic Alkaline picrate (modified Jaffe) method
Creatinine	using Dimension RXL Max as documented in
Creatinine	Biochemistry Procedure Manual chapter

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Creatinine	CP065
Gamma-Glutamyl	L-y-glutamyl-3-carboxy-4-nitroanilide substrate
Transferase (GGT)	reaction/IFCC method using Dimension RXL
Transferase (GGT)	Max as documented in Biochemistry
Transferase (GGT)	Procedure Manual chapter CP085
Glucose	Hexokinase method using Dimension RXL
Glucose	Max as documented in Biochemistry
Glucose	Procedure Manual chapter CP090
HDL Cholesterol	PEG-modified Cholesterol esterase, oxidase,
HDL Cholesterol	peroxidase, end point method using Dimension
HDL Cholesterol	RXL Max as documented in Biochemistry
HDL Cholesterol	Procedure Manual chapter CP037
Lactate Dehydrogenase	Lactate to pyruvate, nicotinamide adenine
(LDH)	dinucleotide (NAD) method using Dimension
(LDH)	RXL Max as documented in Biochemistry
(LDH)	Procedure Manual chapter CP100
Phosphate (Inorganic)	Phosphomolybdate method using Dimension
Phosphate (Inorganic)	RXL Max as documented in Biochemistry
Phosphate (Inorganic)	Procedure Manual chapter CP125
Potassium	Indirect Integrated Multisensor Technology
Potassium	(IMT) method using Dimension RXL Max as
Potassium	documented in Biochemistry Procedure
Potassium	Manual chapter CP075
Sodium	Indirect Integrated Multisensor Technology
Sodium	(IMT) method using Dimension RXL Max as
Sodium	documented in Biochemistry Procedure

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Sodium	Manual chapter CP075
Total Protein	Biuret reaction method using Dimension RXL
Total Protein	Max as documented in Biochemistry
Total Protein	Procedure Manual chapter CP140
Triglyceride	Glycerol Phosphate Oxidase reaction method
Triglyceride	using Dimension RXL Max as documented in
Triglyceride	Biochemistry Procedure Manual chapter
Triglyceride	CP145
Urea	Urease/glutamate dehydrogenase method
Urea	using Dimension RXL Max as documented in
Urea	Biochemistry Procedure Manual chapter
Urea	CP150
Uric Acid	Uricase method using Dimension RXL Max as
Uric Acid	documented in Biochemistry Procedure
Uric Acid	Manual chapter CP155
FEME	Semi-Automated reflectance spectroscopy
FEME	method using Clinitek Advantus as
FEME	documented in Microbiology Procedures
FEME	Manual VP208
Electrolytes	GBLYTE ELECTROLYTE ANALYZER
Sodium (Na) e	nan
Potassium (K) e	nan
Chloride (Cl) e	nan
Kidney Function Test	SYSMEX BX3010
Urea e	nan
Creatinine e	nan
Calcium e	nan
Phosphate e	nan
Uric Acid e	nan
Glycemic Index	nan
Glucose e	nan
Hexokinase	nan
Liver Function Test	nan
Alanine e	nan
Transaminase	nan
(ALT)	nan

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Aspartate	nan
Transaminase	nan
(AST)	nan
Total protein	nan
(TP)	nan
Albumin	nan
Total Bilirubin	nan
Alkaline	nan
Phosphate	nan
Gamma	nan
Glutamyl	nan
Transferase	nan
(GGT)	nan
Lipid Profile	nan
Total e	nan
Cholesterol	nan
High Density	nan
Lipoprotein	nan
Low Density	nan
Lipoprotein	nan
Triglycerides	nan
BETA HCG	Fully automated immunoassay, COBAS E411
Anti-parasitic antibody levels:	nan
Amoebiasis IgG	Enzyme-Linked Immunosorbent Assay /
Amoebiasis IgG	BIOTEK ELISA Machine Method as documented in IMR/IDRC/PST/SOP/1-4
Syphilis Screening	Carbon Antigen Particle Agglutination method as documented in DS/LAB/LW 1/002
HbsAg	Manual ELISA method as documented in DS/LAB/LW 1/002
HIV (1&II) Ab ELISA	Manual ELISA method as documented in DS/LAB/LW 1/002
Malaria Parasite	Manual ELISA method as documented in DS/LAB/LW 1/002
Alanine Transaminase (ALT)	Enzymatic (NADH without P5P) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Albumin (AlbuminBCP)	Colorimetric (Bromocresol Purple) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Alkaline Phosphatase (AlkP)	Para nitrophenyl phosphate as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)

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Amylase	Enzymatic (CNP3 Substrate) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Aspartate Transaminase (AST)	Enzymatic (NADH without P5P) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Calcium	Arsenazo III as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Chloride (Cl-C)	Ion-selective electrode diluted (ISE Indirect) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Cholesterol (Chol)	Enzymatic as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
C-Reactive Protein (CRP48)	Immunoturbidimetric as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Creatinine	Kinetic Alkaline Picrate as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Creatinine	NAC (N-Acetyl-L-Cysteine) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Creatinine Kinase (CK)	Diazo Reaction as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Direct Bilirubin (Bili D)	Enzymatic (Hexokinase/G-6-PDH) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Glucose (Serum/Plasma)	Accelerator Selecting Detergent as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
High Density Lipoprotein (Ultra HDL)	Lactate to Pyruvate (L to P) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Lactate Dehydrogenase (LDH)	

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Magnesium	Enzymatic as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Phosphorus	Phosphomolybdate as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Potassium (K-C)	Ion-selective electrode diluted (ISE Indirect) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Sodium (Na-C)	Ion-selective electrode diluted (ISE Indirect) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Total Bilirubin (Bili Total)	Diazonium salt as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Total Protein (Total Prot)	Biuret as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Triglycerides (Trig)	Glycerol Phosphate Oxidase (GPO) as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Urea	Urease as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)
Uric acid	Uricase as documented in Arahan Kerja Pengendalian Ujian Pada Alinity (HTPG/JP/CHM/AK-02)

**SCOPE OF MEDICAL TESTING : HAEMATOLOGY**

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Immunohaematology	None	None
	None	None
	None	None
	None	None
Whole Blood	ABO & Rh D Blood	Manual tube method as documented in Blood

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Grouping	Bank Procedure Manual chapter BP020
Cross-matching	Column Agglutination (gel card) method as
Cross-matching	documented in Blood Bank Procedure Manual
Cross-matching	chapter BP026
Direct Antiglobulin Test	Column agglutination (gel card) method as
Direct Antiglobulin Test	documented in Blood Bank procedure Manual
Direct Antiglobulin Test	chapter BP085
Antibody screening /	Column agglutination (gel card) method as
Indirect Antiglobulin Test	documented in Blood Bank Procedure manual
Indirect Antiglobulin Test	chapter
Full Blood Count (FBC)	Fluorescent flow cytometry, hydrodynamic
Full Blood Count (FBC)	focusing and Cyanide-free SLS method using
Full Blood Count (FBC)	Sysmex XN 1000 analyzer as
Full Blood Count (FBC)	documented in Haematology Procedure
Full Blood Count (FBC)	Manual, YP037
ABO & Rh Blood	Test Tube Method / Centrifuge as documented
Grouping	in
Grouping	MLS/LAB/WI.3.0; Index 1.0
Grouping	MLS/LAB/WI.3.0; Index 2.0
Grouping	MLS/LAB/WI.3.0; Index 3.0
Malaria Parasite	ELISA Method / Microplate washer, Incubator
Malaria Parasite	37°C and Reader as documented in
Malaria Parasite	MLS/LAB/WI.2.0; Index 1.0
Malaria Parasite	Blood Smear Thick and Thin Method as
Malaria Parasite	documented in MLS/LAB/WI.2.0; Index 2.0
ABO & Rhesus Blood	Test Tube method / Centrifuge as documented
Grouping	in JH/WI/01-Rev 6
Malaria Parasite	ELISA -" Qualisa MalariaTM Method /
Malaria Parasite	Incubator 37°C, Microplate washer and Reader
Malaria Parasite	as documented in JH/WI/04-Rev 4
Malaria Parasite	Blood smear thick and thin method as

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Malaria Parasite	documented in JH/WI/04-Rev 4; clause 4.2
iii Hematocrit	None
iv. Mean Cell Volume Mean Vv	b Coulter Principle, CN-Free Hemoglobinometry, Flowcytometry / UniCel DxH 800 Coulter as documented in
Corpuscular	None
Haemoglobin	None
Mean Cell vi	None
Haemoglobin	None
Concentration	None
vii Platelet	None
viii Red Cell	None
Distribution	None
Width (CV)	None
Full Blood Picture	Fully automated preparation / Sysmex XN3000
(FBP)	(Sysmex XN-20 Integrated with Automated Slide Maker SP10) as documented in
Haemoglobin	Capillary Electrophoresis (CE) / SEBIA Flex2
Analysis	Cap Piercing Analyser as documented in
None	HA/HAEM/MRKH/RC/WI-23
None	Gel Electrophoresis (acid) / Hydrasis Gel
None	Electrophoresis Analyser as documented in
None	Gel Electrophoresis (alkaline) / Hydrasis Gel
None	Electrophoresis Analyser as documented in
None	HA/HAEM/MRKH/RC/WI-25
Blood Count (FBC)	Electrical resistance for counting WBC, RBC and
White Cell	PLT and cyanide free method for hemoglobin /
None	as documented in
None	HA/HAEM/MRKH/CYT/WI-11v1
Karyotyping	G-banding technique / MetaSystem: IKAROS imaging as documented in
None	HA/HAEM/MRKH/CYT/WI-05-1v2
None	HA/HAEM/MRKH/CYT/WI-11v1
None	HA/HAEM/MRKH/CYT/WI-12v2
Hybridization (FISH)	/MetaSystem ISIS imaging as documented in
None	HA/HAEM/MRKH/CYT/WI-13v1
None	HA/HAEM/MRKH/CYT/WI-17v2



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None	HA/HAEM/MRKH/CYT/WI-18v2
None	HA/HAEM/MRKH/CYT/WI-19 v1
None	HA/HAEM/MRKH/CYT/WI-20v1
Fluorescence In-situ	FISH method /Thermobrite-StatSpin,Abbott Molecular
Hybridization (FISH)	/MetaSytem ISIS imaging as documented in
None	HA/HAEM/MRKH/CYT/WI-13v1
None	HA/HAEM/MRKH/CYT/WI-17v2
None	HA/HAEM/MRKH/CYT/WI-18v2
None	HA/HAEM/MRKH/CYT/WI-19 v1
None	HA/HAEM/MRKH/CYT/WI-20v1
ABO Blood Grouping / Rh (D)	Tube Method as documented in MTM-IH-06
Malarial Antigen	ELISA Method as documented in MTM-IH-03
Malarial Antigen	ROBONIK Washwell plate Elisa Washer
Malarial Antigen	ROBONIK Readwell touch Elisa Plate
Malarial Antigen	Analyser
Blood Film Malaria	Microscopy -" Thick and Thin Blood Film as
Parasite (BFMP)	documented in MTM-IH 07
Parasite (BFMP)	Giemsa stain
Full Blood Count	Cell count using Sysmex XN 550 and XN 1000
(FBC)	analyzers as documented in Haematology
None	Procedure Manual Chapter and YP037
ABO and RhD Blood	Manual tube method as documented in Blood
Grouping	Bank Procedure Manual Chapter BP020
Cross-matching	Column Agglutination Technology method as
None	documented in Blood Bank Procedure Manual
None	Chapter BP026
ABO Blood Grouping /	Test Tube
Rhesus	nan
Full Blood Count (FBC) White Blood Cell	Mythic-,¢ 22 AL
Lymphocyte	nan
Monocytes	nan
Neutrophils	nan
Eosinophils	nan
Basophils	nan
Red Blood Cell	nan
Hemoglobin	nan

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Hematocrit	nan
Mean Cell	nan
Volume	nan
Mean	nan
Corpuscular	nan
Hemoglobin	nan
Concentration	nan
Red Cell	nan
Distribution Width	nan
Platelets	nan
Mean Platelet	nan
Volume	nan
Malaria Antigen	Reader and Washer (ELISA Method)
Malaria Antigen	GBLISA-R Microplate Reader
Malaria Antigen	GBLISA-W Microplate Washer
Malaria Slide	Thick & Thin Blood Film by Microscopy Method
(Outsource)	nan
Glycated Haemoglobin	Clover A1c- <sub>g</sub> Self
Glycated Haemoglobin	On-Call Multipro Analyzer
Malaria Antigen	Malaria ELISA Enzyme Linked Immunosorbent
Screening Test (ELISA)	Assay / ELISA Semi Automated Instrument -"
Screening Test (ELISA)	Washer, Reader and Incubator as documented
Screening Test (ELISA)	in Q@LAB_SOP_04
Blood film for Malaria	Blood Film Malaria Parasite (Thick and Thin
Parasite	Film) / Giemsa Staining of Thick and Thin Blood
Parasite	Film as documented in Q LAB_SOP_05
Cyclosporin	Immuno-electrochemiluminescence/Cobas e801
Cyclosporin	(6) as documented in electronically in Cobas e801
G6PD screen	Fluorescence Method/Manual as documented in G6PD
G6PD screen	SOP (GPQD/HAE/SOP-55)
Cytomegalovirus PCR	as documented in GPQD/MOL/SOP-14
Mumps IgG & IgM	Chemiluminescence Immunoassay/Diasorin XL (2)
Mumps IgG & IgM	as documented in Operator Manual
Measles IgG & IgM	Chemiluminescence Immunoassay/Diasorin XL (2)
Measles IgG & IgM	as documented in Operator Manual

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Varicella IgG & IgM	Chemiluminescence Immunoassay/Diasorin XL (2)
Varicella IgG & IgM	as documented in Operator Manual
HBA1C	DCCT/NGSP/ Roche Cobas (c501, c311) as
HBA1C	documented electronically in Roche COBAS
HBA1C	LINK/Roche COBAS
Urine Pregnancy Test	UPT Test strip method as documented in
Urine Pregnancy Test	GPQD/BI/SOP-11
HBA1C	TTAB-Tetradecyltrimethylammonium bromide
HBA1C	Turbidimetric/Cobas c501 documented as
HBA1C	electronically in Roche COBAS LINK/COBAS 6000
HbA1C	Spectrophotometry/Cobas c311 as documented electronically in Roche C311
Troponin T (POCT)	Quantitative immunological method as documented in Roche H232 (Cobas H232 Operator Manual)
Full Blood Count (FBC)	Fluorescence Flow Cytometry, Hydro Dynamic Focusing & SLS Hemoglobin determination / Sysmex XN1000 as documented in HSNi/PAT/HM/TPM/VER3/01
Full Blood Count (FBC)	HSNi/PAT/HM/AK/VER3/01
D-Dimer	Antigen-antibody interaction/Cobas H232 As documented in
D-Dimer	HSNi/PAT/HM/TPM/VER2/04
D-Dimer	HSNi/PAT/HM/AK/VER2/05

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Peripheral Blood Film (PBF)	Manual peripheral blood slide preparation (smearing & staining) As documented in HSNI/PAT/HM/TPM/VER3/05
Peripheral Blood Film (PBF)	HSNI/PAT/HM/AK/VER2/06
ABO Grouping	Manual method (tube method) As documented in HSNI/PAT/AK/TD/31
Blood Gases	Flow through electrode sensors as documented in HS/JP/WI (CP ;07)-020 pH and Blood Gases on GEM PREMIER 3500
Cyclosporine	EMIT on Viva E (Siemens) as documented in HS/JP/WI (CP:07)- 014 Test on VIVA E (Siemens)
Everolimus	Immunoturbidimetry on Beckman Coulter AU5800 as documented in HS/JP/WI (CP;07)- 024 Test on Beckman Coulter AU 5800
HbA1c	HLPC on Variant II Turbo (Biorad) as documented in HS/JP/WI (CP;07)-011 HbA1c on Variant II Turbo (Biorad)
Tacrolimus	EMIT on Viva E (Siemens) as documented in HS/JP/WI (CP:07)- 014 Test on VIVA E (Siemens)
Full Blood Count	Flowcytometry Method Hydrodynamic Focusing method SLS-Hemoglobin Method.
Full Blood Count	HS/JP/WI(HM:08)-004
Erythrocyte Sedimentation Rates (ESR)	Westergren Method HS/JP/W1(HM:08)- 005
Full Blood Picture (FBP)	Flowcytometry and Microscopic Examination HS/JP/W1(HM:08)- 011
Reticulocytes	Flowcytometry method
Reticulocytes	HS/JP/W1(HM:08)- 004
Hb Analysis	1. High Performance Liquid Chromatography HS/JP/W1(HM:08)-21 2. Capillary Electrophoresis
ABO and RhD Blood Grouping	Manual tube method as documented in Blood Bank Operation Procedure Manual BP020.
Cross-matching	Column Agglutination Technology method as documented in Blood Bank Operation Procedure Manual BP026.

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Direct Antiglobulin Test	Column Agglutination Technology method as documented in Blood Bank Procedure Manual, BP085
Full blood Count (FBC)	Cell count using Sysmex XS 500i analyzer as documented in Haematology Procedure Manual YP036.
Full Blood Count (5-part hematology analyser)	Method: Combination of Impedance, SLS Hb, Flowcytometry, and calculation
(5-part hematology analyser)	Analyser: Sysmex XN-1000
(5-part hematology analyser)	All methods and specifications as documented in HTPG/JP/HEM/AK-01
(5-part hematology analyser)	Manual Differential count as documented in
(5-part hematology analyser)	HTPG/JP/HEM/AK-11
Reticulocyte count	Flowcytometry method Analyser: Sysmex XN-1000 All methods and specifications as documented in HTPG/JP/HEM/AK-01
Full Blood Picture	Manual blood smear and staining method using Leishman stain All methods and specifications as documented in HTPG/JP/HEM/AK-10 & AK-12
WBC?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
WBC?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
RBC?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
RBC?s Count	SASMEC@IIUM/PALM/INT-W10204
Hemoglobin?s Count	Photometric Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented
Hemoglobin?s Count	in SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Hematocrit?s Count	Photometric Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented
Hematocrit?s Count	in SASMEC@IIUM/PALM/INT-W10204

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Mean Corpuscular Volume?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Mean Corpuscular Volume?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Mean Corpuscular Hemoglobin?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in SAS MEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Mean Corpuscular Hemoglobin Concentration?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in SAS MEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
RDW?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
RDW?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Platelet?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Platelet?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Neutrophils?s Count	Aperture Impedance. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Neutrophils?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Lymphocytes?s Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Lymphocytes?s Count	SASMEC@IIUM/PALM/INT-W10204
Monocytes?s Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Monocytes?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Eosinophil?s Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in

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Eosinophil?s Count	SASMEC@IIUM/PALM/INT-W10204
Basophils?s Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Basophils?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
NE# Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
NE# Count	SASMEC@IIUM/PALM/INT-W10204
LY# Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
LY# Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
MO# Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
MO# Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
EO# Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
EO# Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
BA# Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
BA# Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Nucleated Red Blood Cell?s Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Nucleated Red Blood Cell?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
NRBC# Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
NRBC# Count	SASMEC@IIUM/PALM/INT-W10204
MDW?s Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in

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MDW?s Count	SASMEC@IIUM/PALM/INT-W10204 SASMEC@IIUM/PALM/INT-W10205
Retic?s Count	VCSn Analysis. Analyzer Beckman Coulter DXH 800 and DXH 900 as documented in
Retic?s Count	SASMEC@IIUM/PALM/INT-W10204
Glucose-6-phosphate dehydrogenase deficiency (G6PD) screening	Spot fluorescence test method as documented in; SASMEC@IIUM/PALM/HAE-WP01 SASMEC@IIUM/PALM/HAE-WI10102
Full blood picture with clinical interpretation	Slide preparation and routine staining: (Automated) as documented in; SASMEC@IIUM/PALM/HAE-WI0101/W10105 Haematology Slide Stainer Cytocentrifuge User's Manual
Haemoglobin analysis (HbA, HbA2, HbF, Hb variant)	Quantitation of HbA, HbA2, HbF, Hb variant: High Performance Liquid Chromatography (HPLC) method as documented in SASMEC@IIUM/PALM/HAE-WP02 SASMEC@IIUM/PALM/HAE-WI10203/ BioRad Variant II Haemoglobin Testing System User?s Manual
Haemoglobin analysis (HbA, HbA2, HbF, Hb variant)	Capillary?s electrophoresis (CE) method as documented in SASMEC@IIUM/PALM/HAE-WP02 SASMEC@IIUM/PALM/HAE-WI0202/ Sebia Capillarys 2 Flex Piercing User?s Manual
Haemoglobin analysis (HbA, HbA2, HbF, Hb variant)	Hb H inclusion bodies
Haemoglobin analysis (HbA, HbA2, HbF, Hb variant)	Specimen preparation and staining (manual) as documented in SASMEC@IIUM/PALM/HAE-
Haemoglobin analysis (HbA, HbA2, HbF, Hb variant)	Blood cell morphology; Slide preparation and routine staining: (Automated) as documented in SASMEC@IIUM/PALM/HAE-WI10101/ Haematology Slide Stainer Cytocentrifuge User's Manual

NOTE :