

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 000
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Accreditation No: ML 014

Awarded to

**Clinical Laboratories
Dr. Ziauddin Hospital, North Campus Block-B
North Nazimuddin, Karachi, Pakistan**

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **24-06-2019** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of **ISO 15189:2012**.

The accreditation requires regular surveillance, and is valid until **22-06-2025**.

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

PAKISTAN NATIONAL ACCREDITATION COUNCIL

07 02-2023
Date

SD
Director General



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Testing Laboratory.

Accreditation Scope of Clinical Laboratories Dr. Ziauddin Hospital, North Campus
 Block-B North Nazimabad, Karachi, Pakistan.

Permanent laboratory premises

Materials tested	Testing field (e.g. Chemical, Micro etc)	Types of test/ Properties measured	Reference to standardized method/ Internal method reference
BLOOD	CLINICAL CHEMISTRY	ANTI HBS	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		(AFP) ALPHA FETOPROTEIN	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		CA-125	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		CARBAMIZAPINE	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		CEA	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		CORTISOL	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		DIGOXIN	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		FSH	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		HBsAg	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		HIV Ag-Ab Combo	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		HOMOCYSTEINE	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		LH	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		PHENYTOIN	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		PROLACTIN	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		Total PSA	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		VANCOMYCIN	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		VALPROIC ACID	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		25-OH VIT D	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)

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Materi als tested	Testing field (e.g. Chemical, Micro etc)	Types of test/ Properties measured	Reference to standardized method/ Internal method reference
BLOOD	CLINICAL CHEMISTRY	hs Troponin-I	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		Total β -hCG	CHEMILUMINESCENCE (CMIA) (Abbott immunoassay)
		Anti-HBC	CHEMILUMINESCENCE Vitros Eci
		Anti-HCV	CHEMILUMINESCENCE Vitros Eci
		ACTH	CHEMILUMINESCENCE (CEIA) Immulate
		C-PEPTIDE	CHEMILUMINESCENCE (CEIA) Immulate
		D-DIMER	CHEMILUMINESCENCE (CEIA) Immulate
		ESTRADIOL	CHEMILUMINESCENCE (CEIA) Immulate
		TOTAL TESTOSTERONE	CHEMILUMINESCENCE (CEIA) Immulate
		GROWTH HORMONE (hGH)	CHEMILUMINESCENCE (CEIA) Immulate
		TOTAL IgE	CHEMILUMINESCENCE (CEIA) Immulate
		INSULIN	CHEMILUMINESCENCE (CEIA) Immulate
		PROGESTERONE	CHEMILUMINESCENCE (CEIA) Immulate
		PTH intact	CHEMILUMINESCENCE (CEIA) Immulate
		FOLIC ACID	CHEMILUMINESCENCE (CEIA) Immulate
		VITAMIN-B 12	CHEMILUMINESCENCE (CEIA) Immulate
		SODIUM	DIRECT ISE Easylyte
		POTASSIUM	DIRECT ISE Easylyte
		CHLORIDE	DIRECT ISE Easylyte
		CK-MB MASS	Electrochemiluminescence Cobas e-601
		Free T3	Electrochemiluminescence Cobas e-601
		Free T4	Electrochemiluminescence Cobas e-601
		T3	Electrochemiluminescence Cobas e-601
		T4	Electrochemiluminescence Cobas e-601
		TSH	Electrochemiluminescence Cobas e-601
		ALBUMIN	PHOTOMETRY Cobas c-501
		ALP	PHOTOMETRY Cobas c-501
		ALT	PHOTOMETRY Cobas c-501
		AST	PHOTOMETRY Cobas c-501

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Materials tested	Testing field (e.g. Chemical, Micro etc)	Types of test/ Properties measured	Reference to standardized method/ Internal method reference
BLOOD	CLINICAL CHEMISTRY	AMYLASE	PHOTOMETRY Cobas c-501
		BILIRUBIN TOTAL	PHOTOMETRY Cobas c-501
		BILIRUBIN DIRECT	PHOTOMETRY Cobas c-501
		CHOLESTEROL	PHOTOMETRY Cobas c-501
		CO2 TOTAL	PHOTOMETRY Cobas c-501
		CPK	PHOTOMETRY Cobas c-501
		CRP	PHOTOMETRY Cobas c-501
		CREATININE	PHOTOMETRY Cobas c-501
		FERRITIN	PHOTOMETRY Cobas c-501
		GGT	PHOTOMETRY Cobas c-501
		GLUCOSE	PHOTOMETRY Cobas c-501
		HDL	PHOTOMETRY Cobas c-501
		IRON	PHOTOMETRY Cobas c-501
		LACTIC ACID	PHOTOMETRY Cobas c-501
		LDH	PHOTOMETRY Cobas c-501
		LDL	PHOTOMETRY Cobas c-501
		LIPASE	PHOTOMETRY Cobas c-501
		MAGNISIUUM	PHOTOMETRY Cobas c-501
		PHOSPHORUS	PHOTOMETRY Cobas c-501
		TOTAL CALCIUM	PHOTOMETRY Cobas c-501
		TOTAL PROTEIN	PHOTOMETRY Cobas c-501
		TRIGLYCERIDES	PHOTOMETRY Cobas c-501
		UIBC	PHOTOMETRY Cobas c-501
		UREA	PHOTOMETRY Cobas c-501
		URIC ACID	PHOTOMETRY Cobas c-501
		AMMONIA	PHOTOMETRY Cobas c-501
		GLYCATED HB (HbA1c)	PHOTOMETRY Cobas c-311
		IgA	PHOTOMETRY Cobas c-501
IgG	PHOTOMETRY Cobas c-501		
IgM	PHOTOMETRY Cobas c-501		
OSMOLALRITY	Osmomat 3000		
Protein Electrophoresis	Helena		
BLOOD	HEMATOLOGY	Hemoglobin (Hb)	Non-cyanide hemoglobin analysis method by Spectrophometry Backman Coulter DxH 800 hematology Analyser
BLOOD		Red blood cell count (RBC count)	Impedance cell counting Coulter Backman
BLOOD		Total Leucocyte count(TLC count)	Calculated
BLOOD		Platelet count	Calculated
BLOOD		Hematocrit (HCT)	Calculated

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BLOOD	HEMATOLOGY	Mean Corpuscular Volume(MCV)	Derived from RBC histogram
BLOOD		Mean Corpuscular Hemoglobin(MCH)	Calculated
BLOOD		Mean Corpuscular Hemoglobin Concentration(MCHC)	Calculated
BLOOD		Red Cell Distribution width (RDW)	Derived from RBC histogram
BLOOD		Differential Leucocyte Count	VCSn Technology
BLOOD		Neutrophil	VCSn Technology
BLOOD		Lymphocyte	VCSn Technology
BLOOD		Monocyte	VCSn Technology
BLOOD		Eosinophil	VCSn Technology
BLOOD		Basophil	VCSn Technology
BLOOD		Nucleated RBCs	VCSn Technology
BLOOD		Absolute Neutrophil Count	Calculated
BLOOD		Absolute Lymphocyte Count	Calculated
BLOOD		Absolute Monocyte Count	Calculated
BLOOD		Absolute Eosinophilic count	Calculated
BLOOD		Absolute Basophilic count	Calculated
BLOOD		Morphology	Microscopy
BLOOD		Erythrocyte Sedimentation Rate(ESR)	Westergren Method using Optical detection(MICROsed- system)
BLOOD		Reticulocyte Count	Manual Method using Supravital staining of slides followed by Microscopic counting
BLOOD		Sickling Test	N/A
BLOOD	Peripheral Smear Morphology	Slide staining and Microscopy	
BLOOD	Malarial Parasite	Slide staining and Microscopy	
BLOOD	BLOOD BANK	Prothrombin time(PT)	Optical clot detection by light absorbance Sysmex CA 500 coagulation analyser
BLOOD		Activated Partial Thromboplastin time(APTT)	Optical clot detection by light absorbance Sysmex CA 500 coagulation analyser
BLOOD		Fibrinogen level	Optical clot detection by light absorbance Sysmex CA 500 coagulation analyser
BLOOD		Blood Group	antigen-antibody reaction detection by red cell agglutination in test tube
BLOOD		Red cell Alloantibody Screening	antigen-antibody reaction detection by red cell agglutination in test tube
BLOOD		Cross Match	antigen-antibody reaction detection by red cell agglutination in test tube

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Materials tested	Testing field (e.g. Chemical, Micro etc)	Types of test/ Properties measured	Reference to standardized method/ Internal method reference
BLOOD	BLOOD BANK	Direct coomb's test	antigen-antibody reaction detection by red cell agglutination in test tube
BLOOD		Red cell antigen phenotyping	antigen-antibody reaction detection by red cell agglutination in test tube
BLOOD		Red cell alloantibody Titre	antigen-antibody reaction detection by red cell agglutination in test tube
CSF D/R	HEMATOLOGY	RBC Count	Manual Counts using Neubaur Chamber
		WBC Count	Manual Counts using Neubaur Chamber
		Differential Leucocyte Count	Microscopy
		Neutrophil	Microscopy
		Lymphocyte	Microscopy
		Monocyte	Microscopy
		Eosinophil	Microscopy
		Basophil	Microscopy
		Abnormal cell	Microscopy
		Morphology	Microscopy
Pleural and Pericardial Fluid D/R	HEMATOLOGY	RBC Count	Manual Counts
		WBC Count	Manual Counts
		Differential Leucocyte Count	Microscopy
		Neutrophil	Microscopy
		Lymphocyte	Microscopy
		Monocyte	Microscopy
		Eosinophil	Microscopy
		Basophil	Microscopy
		Abnormal cell	Microscopy
		Morphology	Microscopy
Peritoneal Fluid D/R	HEMATOLOGY	RBC Count	Manual Counts
		WBC Count	Manual Counts
		Differential Leucocyte Count	Microscopy
		Neutrophil	Microscopy
		Lymphocyte	Microscopy
		Monocyte	Microscopy
		Eosinophil	Microscopy
		Basophil	Microscopy
		Abnormal cell	Microscopy
		Morphology	Microscopy

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Materials tested	Testing field (e.g. Chemical, Micro etc)	Types of test/ Properties measured	Reference to standardized method/ Internal method reference	
Synovial Fluid D/R	HEMATOLOGY	RBC Count	Manual Counts	
		WBC Count	Manual Counts	
		Differential Leucocyte Count	Microscopy	
		Neutrophil	Microscopy	
		Lymphocyte	Microscopy	
		Monocyte	Microscopy	
		Eosinophil	Microscopy	
		Basophil	Microscopy	
		Abnormal cell	Microscopy	
		Morphology	Microscopy	
		Crystals		
Bone marrow aspirate		HEMATOLOGY	Morphology	Microscopy
Tracheal Aspirates		MICROBIOLOGY	Routine Culture and sensitivity	Manual Culture Method
Bronchial Alveolar lavage	Routine Culture and sensitivity		Manual Culture Method	
CVP TIP	Routine Culture and sensitivity		Manual Culture Method	
Umbilical TIP	Routine Culture and sensitivity		Manual Culture Method	
D/L TIP	Routine Culture and sensitivity		Manual Culture Method	
Tracheal TIP	Routine Culture and sensitivity		Manual Culture Method	
Sputum	Routine Culture and sensitivity		Manual Culture Method	
Tissue	Routine Culture and sensitivity		Manual Culture Method	
Liver abscess	Routine Culture and sensitivity		Manual Culture Method	
Pus swab	Routine Culture and sensitivity		Manual Culture Method	
Ear swab	Routine Culture and sensitivity		Manual Culture Method	
Lymph nodes	Routine Culture and sensitivity		Manual Culture Method	
Nasal Swab	Routine Culture and sensitivity		Manual Culture Method	
Eye swab	Routine Culture and sensitivity		Manual Culture Method	
High Vaginal swab	Routine Culture and sensitivity		Manual Culture Method	
Urethral swab	Routine Culture and sensitivity		Manual Culture Method	
IUCD	Routine Culture and sensitivity		Manual Culture Method	

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Prostatic fluid	MICROBIOLOGY	Routine Culture and sensitivity	Manual Culture Method	
Throat Swab		Routine Culture and sensitivity	Manual Culture Method	
Sterile Body Fluids		Routine Culture and sensitivity	Manual Culture Method	
Blood and Bone marrow		Blood and Bone marrow Culture & Sensitivity	BACTAC 9240 / Manual Culture Method	
Urine		Urine Culture and Sensitivity (MSU)	Manual Culture Method	
		Urinary Catheter sample	Manual Culture Method	
Stool		Stool Culture and Sensitivity	Manual Culture Method	
Sterile Body Fluids		AFB Smear	Microscopy Ziehl Neelson Staining	
		Pus	AFB Smear	Microscopy Ziehl Neelson Staining
Tracheal Aspirate		AFB Smear	Microscopy Ziehl Neelson Staining	
Bronchial Alveolar lavage		AFB Smear	Microscopy Ziehl Neelson Staining	
Sputum		AFB Smear	Microscopy Ziehl Neelson Staining	
Tissue		AFB Smear	Microscopy Ziehl Neelson Staining	
Liver abscess		AFB Smear	Microscopy Ziehl Neelson Staining	
Lymph nodes		AFB Smear	Microscopy Ziehl Neelson Staining	
Tracheal secretions in Tips		AFB Smear	Microscopy Ziehl Neelson Staining	
CSF		India Ink	Microscopy	
CSF		General Microscopy	Microscopy	
Urine		General Microscopy	Microscopy	
Blood		General Microscopy	Microscopy	
Tissue		General Microscopy	Microscopy	
Stool		General Microscopy	Microscopy	
Stool		· Stool Detail Report	Microscopy	
Stool		· Stool for Cyclospora and Cryptosporidium	Microscopy Modified Acid Fast Staining	
BLOOD		MOLECULAR GENETICS	HCV Qualitative	Rotorgene Q PCR Real time PCR
Biopsy Sample		HISTOPATHOLOGY	H & E Staining	Processor, Microtome, Cytotome, Embedding, Microscope, Refrigerator, Incubator, Water Bath.

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