



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Medical Center CITO Ltd.
0159, Beliashvili st.145
Tbilisi, Georgia

Fulfills the requirements of

ISO 15189:2022

In the field of

MEDICAL AND CLINICAL LABORATORIES

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to be 'J. Stine', is positioned above a horizontal line.

Jason Stine, Vice President

Expiry Date: 06 July 2028

Certificate Number: AM-2063



This medical laboratory is accredited in accordance with the recognized International Standard ISO 15189:2012.
This accreditation demonstrates technical competence for a defined scope and the operation of a medical laboratory
quality management system ([refer to joint IAF-ILAC-ISO Communiqué dated November 2021](#)).

SCOPE OF ACCREDITATION TO ISO 15189:2022

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MEDICAL/CLINICAL TESTING

ISO 15189:2022 Accreditation Granted: **01 July 2026**

Certificate Number: **AM-2063**

Certificate Expiry Date: **06 July 2028**

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	Alanine Aminotransferase	Roche cobas pure c303 acc. to IFCC with pyridoxal phosphate activation Horiba Pentra C400 Optimized UV-test according to IFCC (International Federation of Clinical Chemistry) modified method without pyridoxal phosphate.	Serum, Plasma
Clinical Chemistry	Aspartate Aminotransferase	Roche cobas pure c303 acc. to IFCC with pyridoxal phosphate activation Horiba Pentra C400 Optimized UV-test according to IFCC (International Federation of Clinical Chemistry) modified method without pyridoxal phosphate.	Serum, Plasma
Clinical Chemistry	Alkaline phosphatase	Roche cobas pure c303 Colorimetric assay, IFCC Horiba Pentra C400 Kinetic photometric test, according to IFCC	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	γ -Glutamyltransferase	Roche cobas pure c303 Enzymatic colorimetric assay (acc. To Szasz and IFCC) Horiba Pentra C400 Kinetic photometric test according to Szasz modified (1974)	Serum, Plasma
Clinical Chemistry	α -Amylase	Roche cobas pure c303 Enzymatic colorimetric assay acc. to IFCC Horiba Pentra C400 Enzymatic colorimetric assay 4.6 ethylidene-(G7)-p-nitrophenyl-(G1)- α -D-maltoheptaoside (EPS-G7) substrate.	Serum, Plasma, Urine
Clinical Chemistry	Creatine Kinase	Roche cobas pure c303 Standardized method acc. to DGKC and IFCC Horiba Pentra C400 Standardized method acc. to DGKC and IFCC	Serum, Plasma
Clinical Chemistry	Lactate Dehydrogenase	Roche cobas pure c303 Standardized method acc. to IFCC Horiba Pentra C400 Standardized method acc. to IFCC	Serum, Plasma Serum
Clinical Chemistry	Lipase	Roche cobas pure c303 Enzymatic colorimetric assay with 1.2-O-dilauryl-rac-glycero-3-glutaric acid (6-methyl resorufin) ester as substrate Horiba Pentra C400 Enzymatic colorimetric assay with 1.2-O-dilauryl-rac-glycero-3-glutaric acid (6-methyl resorufin) ester as substrate	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	Albumin	Roche cobas pure c303 Colorimetric assay with endpoint method (bromocresol green-BCG) Horiba Pentra C400 Colorimetric (bromocresol green-BCG)	Serum, Plasma
Clinical Chemistry	Total Bilirubin	Roche cobas pure c303 Diazo method Horiba Pentra C400 Diazo method Photometric test using 2,4-dichloroaniline (DCA)	Serum, Plasma
Clinical Chemistry	Direct Bilirubin	Roche cobas pure c303 Diazo method Horiba Pentra C400 Diazo method Photometric test using 2.4 dichloroaniline (DCA).	Serum, Plasma
Clinical Chemistry	Calcium	Roche cobas pure c303 Colorimetric method - Calcium ions react with 5-nitro-5'-methyl-Barta (NM-BARTA) under alkaline conditions to form a complex. Horiba Pentra C400 Metallochromogen Arsenazo III.	Serum, Plasma, Urine
Clinical Chemistry	Magnesium	Roche cobas pure c303 Colorimetric endpoint method with Xylidyl Blue Horiba Pentra C400 Photometric test, Xylidyl Blue	Serum, Plasma
Clinical Chemistry	Iron	Roche cobas pure c303 FerroZine method Horiba Pentra C400 Photometric test using Ferene.	Serum, Plasma
Clinical Chemistry	Unsaturated Iron-Binding Capacity	Roche cobas pure c303 Direct determination with FerroZine.	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	Total Iron- Binding Capacity	Roche cobas pure c303 By calculation	Serum, Plasma
Clinical Chemistry	Phosphate (Inorganic)	Roche cobas pure c303 UV Endpoint method with sample blanking (ammonium phosphomolybdate complex). Horiba Pentra C400 UV method using phosphomolybdate	Serum, Plasma, Urine
Clinical Chemistry	Bicarbonate liquid	Roche cobas pure c303 Bicarbonate reacts with phosphoenolpyruvate (PEP) in the presence of PEPC to produce oxaloacetate and phosphate Horiba Pentra C400 Enzymatic test using phosphoenolpyruvate carboxylase (PEPC) and a stable NADH analog	Serum, Plasma
Clinical Chemistry	Creatinine	Roche cobas pure c303 Enzymatic method Horiba Pentra C400 Enzymatic method	Serum, Plasma, Urine
Clinical Chemistry	HbA1c	Horiba Pentra C400 Immunturbidimetric Roche cobas pure C303 Standardized method according to IFCC transferable to DCCT/NGSP. The HbA1c determination is based on the turbidimetric inhibition immunoassay (TINA) for hemolyzed whole blood (using TTAB)	Whole Blood
Clinical Chemistry	Tina-quant Hemoglobin A1c (Hemolysate Application)	Roche cobas pure c303 Standardized method according to IFCC transferable to DCCT/NGSP. The HbA1c determination is based on the turbidimetric inhibition immunoassay (TINA) for hemolyzed whole blood (using TTAB)	Whole blood

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	Glucose	Roche cobas pure c303 Enzymatic reference method with hexokinase Horiba Pentra C400 Enzymatic method (hexokinase)	Serum, Plasma, Urine
Clinical Chemistry	Cholesterol	Roche cobas pure c303 Enzymatic colorimetric (endpoint) method Horiba Pentra C400 "CHOD-PAP": enzymatic photometric test	Serum, Plasma
Clinical Chemistry	LDL-Cholesterol	Roche cobas pure c303 Homogeneous enzymatic (direct) colorimetric assay Horiba Pentra C400 Homogeneous method for directly measuring LDL-C levels in serum or plasma	Serum, Plasma
Clinical Chemistry	HDL-Cholesterol	Roche cobas pure c303 Homogeneous enzymatic (direct) colorimetric assay Horiba Pentra C400 Homogeneous method for directly measuring HDL-C levels in serum or plasma	Serum, Plasma
Clinical Chemistry	Triglycerides	Roche cobas pure c303 Enzymatic colorimetric test (GPO-PAP) Horiba Pentra C400 Enzymatic colorimetric test	Serum, Plasma
Clinical Chemistry	Total Protein	Roche cobas pure c303 Colorimetric assay (Biuret method) Horiba Pentra C400 Biuret method	Serum, Plasma
Clinical Chemistry	Uric Acid	Roche cobas pure c303 Enzymatic colorimetric test Horiba Pentra C400 Enzymatic determination of uric acid (Trinder method).	Serum, Plasma, Urine

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	Urea / BUN	Roche cobas pure c303 Kinetic test with urease and glutamate dehydrogenase Horiba Pentra C400 Urease-GLDH: enzymatic UV test	Serum, Plasma, Urine
Clinical Chemistry	Anti-streptolysin O	Roche cobas pure c303 Latex Enhanced Immunoturbidimetric assay Horiba Pentra C400 Latex Enhanced Immunoturbidimetric assay	Serum, Plasma
Clinical Chemistry	C-Reactive Protein (Latex)	Roche cobas pure c303 Particle enhanced immune-turbidimetric assay Horiba Pentra C400 Latex enhanced immune-turbidimetric assay	Serum, Plasma
Clinical Chemistry	Sodium	Roche cobas pure c303 Ion-selective electrodes, using automatically diluted specimens ISE Indirect/ ISE Direct ISE based Electrolyte Analysis Exias E 1	Serum, Plasma, Urine
Clinical Chemistry	Potassium	Roche cobas pure c303 Ion-selective electrodes, using automatically diluted specimens ISE Indirect/ ISE Direct ISE based Electrolyte Analysis Exias E 1	Serum, Plasma, Urine
Clinical Chemistry	Chloride	Roche cobas pure c303 Ion-selective electrodes, using automatically diluted specimens ISE Indirect/ ISE Direct ISE based Electrolyte Analysis Exias E 1	Serum, Plasma, Urine

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	CK-MB	Roche cobas pure c303 Sandwich principle Immunological UV assay Horiba Pentra C400 Colorimetric assay, Optimized UV test according to DGKC and IFCC for CK with inhibition of CK-M isoenzymes by monoclonal antibodies.	Serum, Plasma
Clinical Chemistry	Hs_CRP	Roche cobas pure c303 Immunoturbidimetric assay Horiba Pentra C400 Latex enhanced Immunoturbidimetric assay.	Serum, Plasma
Clinical Chemistry	Homocysteine	Roche cobas pure c303 Enzymatic assay	Serum, Plasma
Clinical Chemistry	Total Protein in Urine	Roche cobas pure c303 Turbidimetric method	Urine
Clinical Chemistry	α -Amylase Pancreatic	Roche cobas pure c303 Colorimetric Assay	Serum, Plasma
Clinical Chemistry	Lactate	Roche cobas pure c303 Colorimetric Assay Horiba Pentra C400 Enzymatic colorimetric method. Trinder method	Plasma, Serum
Clinical Chemistry	Ionized calcium	Exias E1 ISE based Electrolyte Analysis	Serum
Clinical Chemistry	pH	Exias E1 ISE based Electrolyte Analysis	Serum
Clinical Chemistry	IgA	Roche cobas pure c303 Immunoturbidimetric Assay Horiba Pentra C400 Immunoturbidimetric Assay	Serum, Plasma
Clinical Chemistry	IgG	Roche cobas pure c303 Immunoturbidimetric Assay Horiba Pentra C400 Immunoturbidimetric Assay	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Chemistry	IgM	Roche cobas pure c303 Immunoturbidimetric Assay Horiba Pentra C400 Immunoturbidimetric Assay	Serum, Plasma
Clinical Chemistry-	RF	Roche cobas pure c303 Latex Immunoturbidimetric Assay Horiba Pentra C400 Latex Immunoturbidimetric Assay	Serum, Plasma
Clinical Chemistry	Transferrin	Roche cobas pure c303 Immunoturbidimetric Assay Horiba Pentra C400 Immunoturbidimetric Assay	Serum, Plasma
Clinical Chemistry	Lithium	Roche cobas pure c303 Colorimetric test	Serum, Plasma
Clinical Chemistry	Zinc	Horiba Pentra C400 Spectrophotometry	Serum, Plasma
Clinical Immunology	HBsAg	Immunochromatography Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)	Serum, whole blood, plasma Serum, Plasma
Clinical Immunology	Anti HBs	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	HBs Ag	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) Sandwich principle	Serum, Plasma
Clinical Immunology	Anti-HBc Total	Biomerieux, VIDAS Enzyme Linked Fluorescent Assay based on an inhibition principle	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	HIV	<p>Biomerieux, VIDAS Enzyme Linked Fluorescent Assay Sandwich method based on the combined detection of HIV1 p24 antigen, and anti HIV1 and anti-HIV2 immunoglobulins G and M (ELFA)</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA)</p>	Serum, Plasma
Clinical Immunology	HIV-1/2	Immunochromatography	Serum, whole blood, plasma
Clinical Immunology	HIV Ag/AB Combo	<p>Abbott Architect i1000sr Two step immunoassay to determine the presence of HIV p24 antigen and antibodies to HIV-1 (Group M and Group O) and HIV-2 in human serum and plasma using CMIA Technology</p>	Serum, Plasma
Clinical Immunology	Anti HCV	<p>Biomerieux, VIDAS Two step enzyme immunoassay sandwich method with a final fluorescent detection of IgG antibodies to hepatitis C virus</p> <p>Immunochromatography</p> <p>Abbott, Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	<p>Serum, Plasma</p> <p>Serum, whole blood, plasma</p> <p>Serum, Plasma</p>
Clinical Immunology	Treponema pallidum (TP) IgG/IgM qualitative	<p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Detection of antibodies against hepatitis C virus	<p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Toxoplasmosis IgG	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay. Indirect sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Two step immunoassay for the qualitative detection of IgG antibodies to Toxoplasma gondii using CMIA Technology</p>	Serum, Plasma
Clinical Immunology	Toxoplasmosis IgM	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay. Indirect sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Two step immunoassay for the qualitative detection of IgM antibodies to Toxoplasma gondii using CMIA Technology</p>	Serum, Plasma
Clinical Immunology	Rubella IgG	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay. Indirect sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Two step immunoassay for the qualitative detection of IgG antibodies to rubella virus using CMIA Technology.</p>	Serum, Plasma
Clinical Immunology	Rubella IgM	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay – Immunocapture</p>	Serum

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Cytomegalovirus IgG	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay. Indirect sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Cytomegalovirus IgM	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Indirect sandwich method with automated adsorption</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - μ-capture test principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Epstein- Barr virus VCA IgM	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay – Immunocapture</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	Serum
Clinical Immunology	Epstein- Barr virus VCA IgG	<p>Biomerieux VIDAS Two step enzyme immunoassay sandwich method with a final fluorescent detection</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	Serum

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Epstein- Barr virus EBNA IgG	<p>Biomerieux VIDAS Two step enzyme immunoassay sandwich method with a final fluorescent detection</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	Serum
Clinical Immunology	Herpes Simplex Virus Type 1+2 IgM	SFRI, IRE 96 Enzyme Linked Immunosorbent Assay Sandwich method	Serum, Plasma
Clinical Immunology	Herpes Simplex Virus Type 1+2 IgG	SFRI, IRE 96 Enzyme Linked Immunosorbent Assay Sandwich method	Serum, Plasma
Clinical Immunology	Chlamydia trachomatis IgM	SFRI, IRE 96 Enzyme Linked Immunosorbent Assay Sandwich method	Serum, Plasma
Clinical Immunology	Chlamydia trachomatis IgG	SFRI, IRE 96 Enzyme Linked Immunosorbent Assay Sandwich method	Serum, Plasma
Clinical Immunology	Thyroid-stimulating hormone	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method ELFA</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Free thyroxine	<p>Biomerieux VIDAS Immunoassay competition method, ELFA</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle.</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Free triiodothyronine	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Immunoassay competition method ELFA</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Thyroid peroxidase autoantibodies (anti TPO)	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Two step enzyme immunoassay sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Thyroglobulin autoantibodies (anti-Tg)	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Two step enzyme immunoassay sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Thyroglobulin (Tg)	<p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Total IgE	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Sandwich principle</p> <p>The electrochemiluminescence immunoassay “ECLIA”</p>	Serum, Plasma
Clinical Immunology	C-Peptide	<p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Insulin	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Human Chorionic Gonadotropin	Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Human Chorionic Gonadotropin + β	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle	Serum, Plasma
Clinical Immunology	Luteinizing hormone	Biomerieux VIDAS Sandwich method, ELFA Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Prolactin	Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Progesterone	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method. Immunoassay competition method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle one step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	17- α -OH Progesterone	<p>SFRI, IRE 96 Enzyme Linked immunosorbent Assay, based on the principle of competitive binding</p>	Serum, Plasma
Clinical Immunology	Estradiol	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay (ELFA). Immunoassay competition method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle one step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Testosterone	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay. Immunoassay competition method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle one step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Free Testosterone	<p>SFRI, IRE 96 Enzyme Linked Immunosorbent Assay Competitive immunoenzymatic colorimetric method</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	DHEA-S	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle Abbott Architect i1000sr Chemiluminescent Microparticle one step Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Follicle stimulating hormone	Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Anti-Mullerian hormone	Biomerieux VIDAS Enzyme Linked Fluorescent Assay (ELFA) Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle	Serum, Plasma
Clinical Immunology	CA 15-3	Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	CA 19-9	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p>	Serum, Plasma
Clinical Immunology	CA 125	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	AFP	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p>	Serum, Plasma
Clinical Immunology	CEA	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	TPSA	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Troponin I Highly Sensitive	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method (One step)</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Troponin I	<p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p>	Serum, Plasma
Clinical Immunology	Ferritin	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle two step Immunoassay (CMIA)</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	25 OH Vitamin D	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Sandwich method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle one step competitive Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	Cortisol	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay Immunoassay competition method</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle</p> <p>Abbott Architect i1000sr Chemiluminescent Microparticle one step Immunoassay (CMIA)</p>	Serum, Plasma
Clinical Immunology	PTH intact	<p>Biomerieux VIDAS Enzyme Linked Fluorescent Assay (ELFA)</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p>	Serum, Plasma
Clinical Immunology	Calcitonin	<p>SFRI, IRE 96 Enzyme Linked Immunosorbent Assay based on the sandwich principle.</p> <p>Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle</p>	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Sex hormone binding globulin SHBG	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle Abbott Architect i1000sr Chemiluminescent Microparticle one step Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Adrenocorticotrophic Hormone (ACTH)	SFRI, IRE 96 Two-Site Enzyme Linked Immunosorbent Assay Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle	Plasma
Clinical Immunology	Anti-TSH-Receptor (TRAb)	SFRI, IRE 96 Enzyme Linked Immunosorbent Assay, competitive method Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Competition principle	Serum
Clinical Immunology	Vitamin B12	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle Abbott Architect i1000sr Chemiluminescent Microparticle one step Immunoassay (CMIA)	Serum
Clinical Immunology	Anti CCP	SFRI, IRE 96 Enzyme Linked Immunosorbent Assay Sandwich method Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – IgG capture test principle	Serum
Clinical Immunology	ANA	SFRI, IRE 96 Indirect solid phase enzyme immunoassay (ELISA).	Serum, Plasma
Clinical Immunology	QuantiFERON-TB Gold Plus (QFT-Plus)	SFRI, IRE 96 The whole blood IFN- γ test measuring responses to ESAT-6 and CFP-10 peptide antigens (ELISA).	Whole Blood

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	Syphilis	Flocculation reaction, Indirect hemagglutination reaction	Blood serum / plasma
Clinical Immunology	HTLV I&II Ab/Ag	SFRI, IRE 96 Enzyme Linked Immunosorbent Assay Sandwich method Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Interleukin-6 (IL-6)	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle	Serum, Plasma
Clinical Immunology	HE4	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) - Sandwich principle	Serum, Plasma
Clinical Immunology	Anti-Phospholipid Screen IgG/IgM	SFRI, IRE 96 ELISA – Sandwich principle	Serum
Clinical Immunology	Anti-Tissue Transglutaminase IgG	SFRI, IRE 96 ELISA – Sandwich principle	Serum
Clinical Immunology	Anti-Tissue Transglutaminase IgA	SFRI, IRE 96 ELISA – Sandwich principle	Serum
Clinical Immunology	Anti-beta-2 Glycoprotein I IgG/IgM	SFRI, IRE 96 ELISA – Sandwich principle	Serum
Clinical Immunology	Anticardiolipin IgG/IgM	SFRI, IRE 96 ELISA – Sandwich principle	Serum
Clinical Immunology	Folate	Roche Cobas pure e402 Electrochemiluminescence immunoassay (ECLIA) – Competition principle Abbott Architect i1000sr Chemiluminescent Microparticle Immunoassay (CMIA)	Serum, Plasma
Clinical Immunology	Procalcitonin BRAHMS	Biomerieux VIDAS Enzyme Linked Fluorescent Assay (ELFA) Cobas pure e402 Electrochemiluminescence immunoassay. Sandwich principle. (ECLIA)	Serum, Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Clinical Immunology	NT pro BNP	Biomerieux VIDAS Enzyme Linked Fluorescent Assay (ELFA) Cobas pure e402 Electrochemiluminescence immunoassay. Sandwich principle. (ECLIA)	Serum, Plasma
Clinical Immunology	Measles IgG	Biomerieux VIDAS Enzyme Linked Fluorescent Assay (ELFA) vitam	Serum
Clinical Immunology	Dihydrotestosterone (DHT)	SFRI, IRE 96 ELISA – competitive immunoassay.	Serum
Clinical Immunology	Inhibin B	SFRI, IRE 96 ELISA – three step sandwich type immunoassay	Serum
Clinical Immunology	Fecal occult blood test	Immuno-chromatographic method	Fecal
Hematology	Complete blood count - CBC: RBC, PLT, WBC/ MCV, HCT, MPV, MCH, MCHC, RDW-CV, PDW, PCT, RDW-SD, MIC %, MAC %, HGB, LYM, MON, NEU, EOS, ALY, LIC, IML, IMM, IMG, NRBC	Horiba Yumizen H1500 Impedance variation measure: RBC, PLT, WBC/ MCV, HCT, MPV, MCH, MCHC, RDW-CV, PDW, PCT, RDW-SD, MIC %, MAC % Spectrophotometric – HGB Impedance Variation Measure and Flow Cytometer: LYM, MON, NEU, EOS, ALY, LIC, IML, IMM, IMG, NRBC Horiba Yumizen H550E Impedance variation measure: RBC, PLT, WBC/ MCV, HCT, MPV, MCH, MCHC, RDW-CV, PDW, PCT, RDW-SD, MIC %, MAC % Spectrophotometric – HGB Impedance Variation Measure and Flow Cytometer: LYM, MON, NEU, EOS, ALY, LIC, IML, IMM, IMG ESR – Erythrocyte Sedimentation Rate	Blood

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Hematology	Erythrocyte Sedimentation Rate-ESR	Westergren Method	Blood
Hematology	Reticulocytes – Stained smear microscopy	Brilliant Cresyl Blue Supravital staining method	Blood (capillary, venous)
Hematology	Blood group and rhesus factor	Agglutination	Blood
Urinalysis	Complete Urine analyze	Reflectance photometry, Microscopy	Urine
Microscopy	Common analysis of fecal	Native samples Microscopy	Fecal
Semen Analysis	Spermogram - semen clinical analysis	Native and stained Microscopy	Semen
Urinalysis	Urine Cell Morphology	Horiba YUMIZEN D20 Digital cell morphology semi-quantitative and qualitative	Urine
Hematology	Blood Cell Morphology	Horiba YUMIZEN D20 Digital cell morphology	Blood Smear
Coagulation	Prothrombin Time, Index, INR	Stago START 4 Determine the oscillation amplitude and the clotting time. Horiba Yumizen G800 Nephelometry, Clotting Time Detection	Plasma
Coagulation	APTT	Stago START 4 Determine the oscillation amplitude and the clotting time. Horiba Yumizen G800 Nephelometry, Clotting Time Detection	Plasma
Coagulation	Fibrinogen	Stago START 4 Determine the oscillation amplitude and the clotting time. Horiba Yumizen G800 Nephelometry, Clotting Time Detection	Plasma

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Coagulation	D-Dimer	Biomerieux VIDAS Enzyme Linked Fluorescent Assay Two-step enzyme immunoassay sandwich method	Plasma
Coagulation	Thrombin Time	Horiba Yumizen G800 Turbidimetry, latex agglutination Horiba Yumizen G800 Nephelometry, Clotting time detection	Plasma
Microbiology	Identification of various bacteria and fungi	BactAlert Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Blood
Microbiology	Identification of various bacteria and fungi	Microscopic, Cultural (Semi-quantitative) VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Urine

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Microbiology	Identification of various bacteria and fungi	Microscopic, Cultural Colorimetric VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Urogenital discharge
Microbiology	<i>Ureaplasma</i> spp. <i>Mycoplasma hominis</i>	Cultural (Semi-quantitative) / Colorimetric Dilution test method in Semi-Solid Agar.	Urogenital discharge
Microbiology	Identification of various bacteria and fungi	Microscopic, BactAlert Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Spinal fluid and other biological sterile fluids
Microbiology	Identification of various bacteria and fungi	Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry.	Upper respiratory tract

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Microbiology	Identification of various bacteria and fungi	Microscopic, Cultural (Semi-quantitative) VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Lower respiratory tract
Microbiology	Identification of various bacteria and fungi	Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Purulent discharge (from eye and ear)
Microbiology	Identification of various bacteria and fungi	Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry.	Purulent discharge (general)

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Microbiology	<i>Salmonella</i> spp., <i>Shigella</i> spp., Enteropathogenic <i>E.coli</i> , <i>Yersinia enterocolitica</i>	Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Faeces
Microbiology	Investigation of large intestine microflora	Cultural (quantitative) VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Faeces
Microbiology	<i>Staphylococcus</i> , <i>Enterobacteriaceae</i> , Non fermenting gr(-)	Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Mother's milk

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Microbiology	Identification of various bacteria and fungi	Cultural VITEK MS Prime Mass spectrometry VITEK 2 COMPACT Colorimetry API Identification System Colorimetry	Duodenal content
Microbiology	Antimicrobial Susceptibility Testing	Serial dilution method (ATB, VITEK 2 Compact) / diffusion method (bio discs, E test)	Strain
Microbiology	BCID Panel	FilmArray 2.0 Multiplex PCR	Blood
Microbiology	Gastrointestinal Panel	FilmArray 2.0 Multiplex PCR	Faeces
Microbiology	Pneumonia Panel Plus	FilmArray 2.0 Multiplex PCR	Sputum, Bal.
Microbiology	Respiratory Panel	Multiplex PCR	Upper Respiratory Ways
Microbiology	Demodex Folliculorum	Microscopy	Eyelash, skin scraping
Microbiology	Giardia lamblia	Immunochromatography	Faeces
Microbiology	<i>Trichomonas vaginalis</i>	Microscopic, Immunochromatography	Urogenital discharge
Microbiology	Clostridium difficile Toxin A + B	Immunochromatography	Faeces
Microbiology	Helicobacter pylori	Immunochromatography	Faecess
Molecular Diagnostics	<i>Chlamydia trachomatis</i> - DNA	QuantStudio 5/Rotor Gene Q Real-time PCR	Urine, swab (cervical, urethral, vaginal)
Molecular Diagnostics	<i>Neisseria gonorrhoea</i> - DNA	QuantStudio 5/Rotor Gene Q Real-time PCR	Urine, Swab (cervical, urethral, vaginal)

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Molecular Diagnostics	<i>Ureaplasma urealyticum</i> and <i>Ureaplasma parvum</i> - DNA	QuantStudio 5/Rotor Gene Q Multiplex real-time PCR	Urine Genital swab, Urethral swab
Molecular Diagnostics	Mycoplasma hominis and Mycoplasma genitalium - DNA	QuantStudio 5/Rotor Gene Q Multiplex real-time PCR	Urine, swab (cervical, urethral, vaginal)
Molecular Diagnostics	Human Papillomavirus (HPV) Genotyping DNA	QuantStudio 5/Rotor Gene Q Multiplex real-time PCR	Cervical swab Urethral swab
Molecular Diagnostics	Hepatitis C virus (HCV) RNA – Qualitative and Quantitative	QuantStudio 5/Rotor Gene Q Real-time PCR	Serum, EDT Plasma
Molecular Diagnostics	SARS - CoV – 2 qPCR Detection RNA	QuantStudio 5 Real-time PCR	Nasopharyngeal swabs, Nasal swabs, Oropharyngeal (throat) swabs
Molecular Diagnostics	HBV PCR Detection DNA	Rotor Gene Q Real-time PCR	EDT Plasma
Molecular Diagnostics	Genetic Markers for Thrombophilia: FII G20210A, MTHFR C677T, MTHFR A1298C, F V G11691A/R506Q, – PAI-1 4G/5G, F XIII V34L	Rotor Gene Q Multiplex real-time PCR QuantStudio 5	EDTA Blood
Molecular Diagnostics	Genetic Markers for Lactose Intolerance: MCM6 gene, C13910T and G22018A Polymorphism	QuantStudio 5 Multiplex real-time PCR	EDTA Blood

General Laboratory (Clinical)

Sub-Specialty	Test-analyte	Method	Matrix
Molecular Diagnostics	Herpes virus 1/Herpes virus 2, T. Pallidum DNA	Rotor Gene Q Multiplex real-time PCR	Endocervical Swab, Urine, Plasma, Genital Swab, Synthetic Cerebrospinal Fluid, Anal Swab, Oropharyngeal Swab, Cell Lysate
Molecular Diagnostics	C. albicans, G.vaginalis, T. vaginalis DNA	Rotor Gene Q Multiplex real-time PCR	Genital Swab, Endocervical swab, vaginal swab, vagino-rectal swabs, urine, plasma (EDTA), bronchoalveolar lavage, saline, sputum
Molecular Diagnostics	HLA alleles associated with celiac disease (DQA1*05, DQB1*03:02, DQB1*02, DQA1*02, DQA1*03, no” DQB1*02	QuantStudio 5 Multiplex real-time PCR	EDTA blood; Citrate Blood
Molecular Diagnostics	<i>Chlamydia trachomatis</i> , <i>Neisseria gonorrhoea</i> , <i>Mycoplasma hominis</i> and <i>Mycoplasma genitalium</i> , <i>Trichomonas vaginalis</i> , <i>Ureaplasma urealyticum</i> , <i>Ureaplasma parvum</i> DNA	Rotor Gene Q QuantStudio 5 Multiplex real-time PCR	Genital Swab, Cervical Swab, Genital Swab, Rectal Swab

General Laboratory (Clinical)

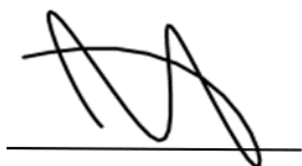
Sub-Specialty	Test-analyte	Method	Matrix
Molecular Diagnostics	<i>Chlamydia trachomatis</i> , <i>Neisseria gonorrhoea</i> , <i>Mycoplasma hominis</i> and <i>Mycoplasma genitalium</i> , <i>Ureaplasma urealyticum</i> , <i>Ureaplasma parvum</i> DNA	Rotor Gene Q QuantStudio 5 Multiplex real-time PCR	Urine, Genital Swab, Cervical Swab, Genital Swab, Rectal Swab
Molecular Diagnostics	f E148Q, M694V, V726A, R408Q, F479L, K695R, M680I (G/C), P369S, R761H, A744S, M694 mutations in human MEFV gene DNA	QuantStudio 5 Real time Allel Specific (ASO)-PCR based technology	EDTA Blood

Sampling¹

Substance Sampled	Sampling Procedure
Blood <ul style="list-style-type: none"> • Capillary • Venous 	Sampling Manual
Urogenital Sample (Genital Discharge)	Sampling Manual
Mucous membranes discharge of the upper respiratory tract, eye, ear	Sampling Manual

Note:

1. Sampling activities take place at Paliashvili Street #40.



Jason Stine, Vice President