



CLIENT CODE : C000027810

**CLIENT'S NAME AND ADDRESS :**  
 FHSL BG ROAD - OPD  
 SURVEY NO. 154/9, OPP. IIM-B,  
 BANNERGHATTA ROAD,  
 BANGALORE 560020  
 KARNATAKA INDIA  
 80-66214444

SRL - FORTIS BANG. BANNERGHATTA  
 154/9, BANNERGHATTA ROAD, OPP. IIM-B,  
 BANGALORE, 560076  
 KARNATAKA, INDIA  
 Tel : 80-66214444,  
 CIN - U74899PB1995PLC045956

**PATIENT NAME :** MR. RAMACHANDRA SHENOY**PATIENT ID :** FH.10180255

ACCESSION NO : 0081TH007827 AGE : 55 Years SEX : Male DATE OF BIRTH : 08-04-1965

DRAWN : 21-08-2020 10:23 RECEIVED : 21-08-2020 10:34 REPORTED : 21-08-2020 12:38

**REFERRING DOCTOR :** DR. Sandeep Nayak P

CLIENT PATIENT ID : UID:10180255

**CLINICAL INFORMATION :**

UID:10180255 REQNO-1470442  
 OPD-OPD  
 BILLNO-111320OPCS129804

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**LIVER FUNCTION TEST****\* ASPARTATE AMINOTRANSFERASE, SERUM**

ASPARTATE AMINOTRANSFERASE (AST/SGOT) 21 Upto 40 U/L

METHOD : UV WITHOUT PSP

**\* ALANINE AMINOTRANSFERASE, SERUM**

ALANINE AMINOTRANSFERASE (ALT/SGPT) 16 Upto 41 U/L

METHOD : UV WITHOUT PSP

**\* GAMMA GLUTAMYL TRANSFERASE, SERUM**

GAMMA GLUTAMYL TRANSFERASE (GGT) 28 8 - 61 U/L

METHOD : G-GLUTAMYL-CARBOXY-NITROANILIDE

**\* BILIRUBIN, TOTAL, SERUM**

BILIRUBIN, TOTAL 1.01 UPTO 1.2 mg/dL

METHOD : DIAZO COLORIMETRIC

**\* BILIRUBIN, DIRECT, SERUM**

BILIRUBIN, DIRECT 0.31 High 0.00 - 0.30 mg/dL

METHOD : DIAZO METHOD

**\* ALKALINE PHOSPHATASE, SERUM**

ALKALINE PHOSPHATASE 97 40 - 129 U/L

METHOD : PNPP - AMP BUFFER

**\* TOTAL PROTEIN, SERUM**

TOTAL PROTEIN 7.4 6.6 - 8.7 g/dL

METHOD : BIURET

**\* ALBUMIN+GLOBULIN+A/G RATIO, SERUM**

ALBUMIN 4.7 3.97 - 4.94 g/dL

METHOD : BCG

GLOBULIN 2.7 2.0 - 4.0 g/dL

METHOD : CALCULATED PARAMETER

ALBUMIN/GLOBULIN RATIO 1.7 RATIO

METHOD : CALCULATED PARAMETER

**Interpretation(s)****ASPARTATE AMINOTRANSFERASE, SERUM-**

Aspartate transferase (AST) is an enzyme found in various parts of the body. AST is found in the liver, heart, skeletal muscle, kidneys, brain, and red blood cells, and it is commonly measured clinically as a marker for liver health. AST levels increase during chronic viral hepatitis, blockage of the bile duct, cirrhosis of the liver, liver cancer, kidney failure, hemolytic anemia, pancreatitis, hemochromatosis. AST levels may also increase after a heart attack or strenuous activity.

**ALANINE AMINOTRANSFERASE, SERUM-**  
 Alanine aminotransferase (ALT) test measures the amount of this enzyme in the blood. ALT is found mainly in the liver, but also in smaller amounts in the kidneys, heart,



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muscles, and pancreas. It is commonly measured as a part of a diagnostic evaluation of hepatocellular injury, to determine liver health.. AST levels increase during acute hepatitis, sometimes due to a viral infection, Ischemia to the liver, chronic hepatitis, obstruction of bile ducts, cirrhosis.

**GAMMA GLUTAMYL TRANSFERASE, SERUM-**

Gamma glutamyl transferase (GGT) is an enzyme found in cell membranes of many tissues mainly in the liver, kidney, and pancreas. It is also found in other tissues including intestine, spleen, heart, brain, and seminal vesicles. The highest concentration is in the kidney, but the liver is considered the source of normal enzyme activity. Serum gamma-glutamyl transferase (GGT) has been widely used as an index of liver dysfunction. Elevated serum GGT activity can be found in diseases of the liver, biliary system, and pancreas .Conditions that increase serum GGT are obstructive liver disease, high alcohol consumption, and use of enzyme-inducing drugs etc.

**BILIRUBIN, TOTAL, SERUM-**

Bilirubin is a yellowish pigment found in bile and is a breakdown product of normal heme catabolism. Bilirubin is excreted in bile and urine, and elevated levels may give yellow discoloration in jaundice. Elevated levels results from increased bilirubin production (eg, hemolysis and ineffective erythropoiesis), decreased bilirubin excretion (eg, obstruction and hepatitis), and abnormal bilirubin metabolism (eg, hereditary and neonatal jaundice).

An elevated bilirubin level in a newborn may be temporary and resolve itself within a few days to two weeks. However, if the bilirubin level is above a critical threshold or rapidly increases, an investigation of the cause is needed so appropriate treatment can be initiated.

Source: Wallach's Interpretation of Diagnostic tests, 9th ed2) Wallach's interpretation of diagnostic tests, 9th ed

**BILIRUBIN, DIRECT, SERUM-**

Conjugated (direct) bilirubin is elevated more than unconjugated (indirect) bilirubin in Viral hepatitis, Drug reactions, Alcoholic liver disease Conjugated (direct) bilirubin is also elevated more than unconjugated (indirect) bilirubin when there is some kind of blockage of the bile ducts like in Gallstones getting into the bile ducts, tumors & Scarring of the bile ducts.

Source: Tietz Text book of Clinical Chemistry & Molecular Diagnostics, 4th ed

**ALKALINE PHOSPHATASE, SERUM-**

Alkaline phosphatase (ALP) is a protein found in almost all body tissues. Tissues with higher amounts of ALP include the liver, bile ducts, and bone. Elevated Alkaline Phosphatase levels are seen in Biliary obstruction, Osteoblastic bone tumors, osteomalacia, hepatitis, Hyperparathyroidism, Leukemia, Lymphoma, Paget's disease, Rickets, Sarcoidosis etc. Lower-than-normal ALP levels seen in Hypophosphatasia, Malnutrition, Protein deficiency, Wilson's disease .

**TOTAL PROTEIN, SERUM-**

Serum total protein, also known as total protein, is a biochemical test for measuring the total amount of protein in serum.. Protein in the plasma is made up of albumin and globulin

Higher-than-normal levels may be due to: Chronic inflammation or infection, Including HIV and hepatitis B or C, Multiple myeloma, Waldenstrom's disease

Lower-than-normal levels may be due to: Agammaglobulinemia, Bleeding (hemorrhage), Burns, Glomerulonephritis, Liver disease, Malabsorption, Malnutrition, Nephrotic syndrome, Protein-losing enteropathy etc.

**ALBUMIN+GLOBULIN+A/G RATIO, SERUM-**  
**ALBUMIN+GLOBULIN+A/G RATIO, SERUM**

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Lower-than-normal levels may be due to: Agammaglobulinemia, Bleeding (hemorrhage), Burns, Glomerulonephritis, Liver disease, Malabsorption, Malnutrition, Nephrotic syndrome, Protein-losing enteropathy etc. Human serum albumin is the most abundant protein in human blood plasma. It is produced in the liver. Albumin constitutes about half of the blood serum protein. Low blood albumin levels (hypoproteinemia) can be caused by: Liver disease like cirrhosis of the liver, nephrotic syndrome, protein-losing enteropathy, Burns, hemodilution, Increased vascular permeability or decreased lymphatic clearance, malnutrition and wasting etc.

**HAEMATOLOGY****COMPLETE BLOOD COUNT, EDTA WHOLE BLOOD/SMEAR****\* BLOOD COUNTS**

HEMOGLOBIN	15.2	13.0 - 17.0	g/dL
METHOD : SLS METHOD			
RED BLOOD CELL COUNT	5.40	4.5 - 5.5	mil/ $\mu$ L
METHOD : AUTOMATED CELL COUNTER:HYDRO DYNAMIC FOUSING (DC DETECTION)			



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WHITE BLOOD CELL COUNT	8.52		4.0 - 10.0	thou/ $\mu$ L
METHOD : FLOW CYTOMETRY/MANUAL MICROSCOPY				
PLATELET COUNT	230		150 - 410	thou/ $\mu$ L
METHOD : AUTOMATED CELL COUNTER:HYDRO DYNAMIC FOUSING (DC DETECTION)				
<b>RBC AND PLATELET INDICES</b>				
HEMATOCRIT	44.3		40 - 50	%
METHOD : AUTOMATED CELL COUNTER :PULSE HEIGHT DETECTION				
MEAN CORPUSCULAR VOL	<b>82.0</b>	Low	83 - 101	fL
METHOD : AUTOMATED CELL COUNTER : CALCULATED PARAMETER				
MEAN CORPUSCULAR HGB.	28.1		27.0 - 32.0	pg
METHOD : AUTOMATED CELL COUNTER : CALCULATED PARAMETER				
MEAN CORPUSCULAR HEMOGLOBIN	34.3		31.5 - 34.5	g/dL
CONCENTRATION				
METHOD : AUTOMATED CELL COUNTER : CALCULATED PARAMETER				
RED CELL DISTRIBUTION WIDTH	12.9		11.6 - 14.0	%
METHOD : AUTOMATED CELL COUNTER : CALCULATED PARAMETER				
MEAN PLATELET VOLUME	9.6		6.8 - 10.9	fL
METHOD : AUTOMATED CELL COUNTER : CALCULATED PARAMETER				
<b>WBC DIFFERENTIAL COUNT</b>				
SEGMENTED NEUTROPHILS	75		40 - 80	%
METHOD : FLOW CYTOMETRY/MANUAL MICROSCOPY				
ABSOLUTE NEUTROPHIL COUNT	6.38		2.0 - 7.0	thou/ $\mu$ L
EOSINOPHILS	1		1 - 6	%
METHOD : FLOW CYTOMETRY/MANUAL MICROSCOPY				
ABSOLUTE EOSINOPHIL COUNT	0.11		0.02 - 0.50	thou/ $\mu$ L
LYMPHOCYTES	<b>18</b>	Low	20 - 40	%
METHOD : FLOW CYTOMETRY/MANUAL MICROSCOPY				
ABSOLUTE LYMPHOCYTE COUNT	1.52		1.0 - 3.0	thou/ $\mu$ L
MONOCYTES	6		2 - 10	%
METHOD : FLOW CYTOMETRY/MANUAL MICROSCOPY				
ABSOLUTE MONOCYTE COUNT	0.47		0.2 - 1.0	thou/ $\mu$ L

**Interpretation(s)****BLOOD COUNTS-**

The cell morphology is well preserved for 24hrs. However after 24-48 hrs a progressive increase in MCV and HCT is observed leading to a decrease in MCHC. A direct smear is recommended for an accurate differential count and for examination of RBC morphology.

**RBC AND PLATELET INDICES-**

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**COAGULATION****ACT PARTIAL THROMBO PLASTIN TIME (APTT), PLASMA**

APTT	31.3	24.78 - 35.07	SECONDS
METHOD : CLOT BASED AUTOMATED COAGULATION ANALYZER			

APTT CONTROL 30.00

SECONDS

**Comments**

PT INR REPEATED AND CONFIRMED WITH SAME SAMPLE. KINDLY CORRELATE CLINICALLY.

Patient is on eltroxin 50 mcg Kindly correlate clinically.

**PROTHROMBIN TIME, PLASMA**

PROTHROMBIN TIME (PT)	13.8	12.2 - 14.5	SECONDS
METHOD : CLOT BASED AUTOMATED COAGULATION ANALYZER			
INTERNATIONAL NORMALIZED RATIO (INR)	1.03	0.94 - 1.08	RATIO
MEAN NORMAL PT	13.40	13.5	SECONDS

**Interpretation(s)**

ACT PARTIAL THROMBO PLASTIN TIME(APTT), PLASMA-  
 The activated partial thromboplastin time (APTT) reflects the activities of most of the coagulation factors, including factor XII and other "contact factors" (prekallikrein [PK] and high molecular weight kininogen [HMWK]) and factors XI, IX, and VIII in the intrinsic coagulation pathway, as well as coagulation factors in the common coagulation pathway that include factors X, V, II, and fibrinogen (factor I). The APTT also depends on phospholipid (a partial thromboplastin) and ionic calcium, as well as the activator of the contact factors (eg, silica) present in the reagent, but reflects neither the integrity of the extrinsic coagulation pathway that includes factor VII and tissue factor, nor the activity of factor XIII (fibrin stabilizing factor). The APTT is variably sensitive to the presence of specific and nonspecific inhibitors of the intrinsic and common coagulation pathways, including lupus anticoagulants or antiphospholipid antibodies. It is useful for monitoring unfractionated heparin therapy, for screening for certain coagulation factor deficiencies, detection of coagulation inhibitors such as lupus anticoagulant, specific factor inhibitors, and nonspecific inhibitors.

PT/INR "mixing" studies:  
 Poor or partial correction of the abnormal result by normal plasma may be observed in the presence of coagulation factor inhibitors, anticoagulant drugs such as heparin or direct thrombin inhibitors. Total correction indicates coagulation factor deficiency.

PROTHROMBIN TIME, PLASMA-  
 Prothrombin Time measures the integrity of the extrinsic pathway and the adequacy of critical coagulation factors involved in it, namely, Factor VII. This test is therefore used for monitoring oral anticoagulation therapy which lowers the levels of multiple vitamin K dependent coagulation factors in blood (Factors II, VII, IX and X) including Factor VII. The result of PT is expressed as International Normalized Ratio (INR) to neutralize the influence of variable sensitivity of the reagents (thromboplastin) used in the assay by different laboratories.

Prolonged PT/INR is observed in hereditary or acquired deficiency of the relevant coagulation factors, vitamin K deficiency, liver disease, specific coagulation factor inhibitors and nonspecific inhibitors of PT (eg, monoclonal immunoglobulins, elevated fibrin degradation products).

The following INR ranges are recommended for achieving optimal anticoagulation in different clinical conditions:

Diagnosis	Target INR
Treatment of venous thrombosis	2.0- 3.0
Treatment of pulmonary embolism	2.0- 3.0
Prevention of systemic embolism	2.0- 3.0
Tissue heart valves	2.0- 3.0
Hypercoagulable states	2.0- 3.0



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Atrial fibrillation	2.0 - 3.0
Mechanical prosthetic valves (high risk)	2.5 - 3.5
Bileaflet mechanical valve in aortic position	2.0 - 3.0

**BIO CHEMISTRY****\* ELECTROLYTES (NA/K/CL), SERUM**

SODIUM	136	136 - 145	mmol/L
METHOD : ISE INDIRECT			
POTASSIUM	3.95	3.5 - 5.1	mmol/L
METHOD : ISE INDIRECT			
CHLORIDE	98	98 - 107	mmol/L

**\* CREATININE EGFR- EPI**

CREATININE	0.88	0.70 - 1.20	mg/dL
METHOD : JAFFE KINETIC METHOD			
AGE	55		years
GLOMERULAR FILTRATION RATE (MALE)	96.70	Refer Interpretation Below	mL/min/1.73m <sup>2</sup>

**\* GLUCOSE RANDOM, SERUM**

GLUCOSE RANDOM, SERUM	111.0	Non-Diabetic: < 200 Diabetic: > or = 200 "In individuals with symptoms of hyperglycemia or hyperglycemic crisis."	mg/dL
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METHOD : HEXOKINASE

**\* SERUM BLOOD UREA NITROGEN**

BLOOD UREA NITROGEN	9	6 - 20	mg/dL
METHOD : UREASE - UV			
UREA	19	16.6 - 48.5	mg/dL

**Interpretation(s)**

ELECTROLYTES (NA/K/CL), SERUM-  
 Sodium levels are Increased in dehydration, cushing's syndrome, aldosteronism & decreased in Addison's disease, hypopituitarism, liver disease. Hypokalemia (low K) is common in vomiting, diarrhea, alcoholism, folic acid deficiency and primary aldosteronism. Hyperkalemia may be seen in end-stage renal failure, hemolysis, trauma, Addison's disease, metabolic acidosis, acute starvation, dehydration, and with rapid K Infusion. Chloride Is Increased in dehydration, renal tubular acidosis (hyperchloremia, metabolic acidosis), acute renal failure, metabolic acidosis associated with prolonged diarrhea and loss of sodium bicarbonate, diabetes insipidus, adrenocortical hyperfunction, salicylate intoxication and with excessive infusion of Isotonic saline or extremely high dietary intake of salt. Chloride Is decreased in overhydration, chronic respiratory acidosis, salt-losing nephritis, metabolic alkalosis, congestive heart failure, Addisonian crisis, certain types of metabolic acidosis, persistent gastric secretion and prolonged vomiting.  
 CREATININE EGFR- EPI-  
 GFR—Glomerular filtration rate (GFR) is a measure of the function of the kidneys. The GFR is a calculation based on a serum creatinine test. Creatinine is a muscle waste



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product that is filtered from the blood by the kidneys and excreted into urine at a relatively steady rate. When kidney function decreases, less creatinine is excreted and concentrations increase in the blood. With the creatinine test, a reasonable estimate of the actual GFR can be determined.

A GFR of 60 or higher is in the normal range.

A GFR below 60 may mean kidney disease.

A GFR of 15 or lower may mean kidney failure.

Estimated GFR (eGFR) is the preferred method for identifying people with chronic kidney disease (CKD). In adults, eGFR calculated using the Modification of Diet in Renal Disease (MDRD) Study equation provides a more clinically useful measure of kidney function than serum creatinine alone. The CKD-EPI creatinine equation is based on the same four variables as the MDRD Study equation, but uses a 2-slope spline to model the relationship between estimated GFR and serum creatinine, and a different relationship for age, sex and race. The equation was reported to perform better and with less bias than the MDRD Study equation, especially in patients with higher GFR. This results in reduced misclassification of CKD.

The CKD-EPI creatinine equation has not been validated in children &amp; will only be reported for patients = 18 years of age. For pediatric and childrens, Schwartz Pediatric

Bedside eGFR (2009) formulae is used. This revised "bedside" pediatric eGFR requires only serum creatinine and height.

GLUCOSE RANDOM, SERUM-

As per ADA Guidelines 2016,

Diabetic : Random plasma glucose &gt;/=200 mg/dL in a patient with classic symptoms of hyperglycemia or hyperglycemic crisis.

**ENDOCRINOLOGY****\* THYROID PANEL 1, SERUM**

T3	<b>78.00</b>	Low 80.00 - 200.00	ng/dL
METHOD : ELECTROCHEMILUMINESCENCE			
T4	8.30	5.10 - 14.10	µg/dl
METHOD : ELECTROCHEMILUMINESCENCE			
TSH 3RD GENERATION	2.830	0.227 - 4.200	µIU/mL

**Interpretation(s)**

THYROID PANEL 1, SERUM-  
 Triiodothyronine T3 , is a thyroid hormone. It affects almost every physiological process in the body, including growth, development, metabolism, body temperature, and heart rate. Production of T3 and its prohormone thyroxine (T4) is activated by thyroid-stimulating hormone (TSH), which is released from the pituitary gland. Elevated concentrations of T3, and T4 in the blood inhibit the production of TSH.

Thyroxine T4, Thyroxine's principal function is to stimulate the metabolism of all cells and tissues in the body. Excessive secretion of thyroxine in the body is hyperthyroidism, and deficient secretion is called hypothyroidism. Most of the thyroid hormone in blood is bound to transport proteins. Only a very small fraction of the circulating hormone is free and biologically active.

In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels are low.

Below mentioned are the guidelines for pregnancy related reference ranges for Total T4, TSH & Total T3

Levels in	TOTALT4 (µg/dL)	TSH3G (µIU/mL)	TOTALT3 (ng/dL)
Pregnancy	6.6 - 12.4	0.1 - 2.5	81 - 190
First Trimester	6.6 - 12.4	0.1 - 2.5	81 - 190
2nd Trimester	6.6 - 15.5	0.2 - 3.0	100 - 260
3rd Trimester	6.6 - 15.5	0.3 - 3.0	100 - 260

Below mentioned are the guidelines for age related reference ranges for T3 and T4.

T3 (ng/dL)	T4 (µg/dL)
New Born: 75 - 260	1-3 day: 8.2 - 19.9 1Week: 6.0 - 15.9

NOTE: TSH concentrations in apparently normal euthyroid subjects are known to be highly skewed, with a strong tailed distribution towards higher TSH values. This is well documented in the pediatric population including the infant age group.

Reference:

- Burtis C.A., Ashwood E. R. Bruns D.E. Tietz textbook of Clinical Chemistry and Molecular Diagnostics, 4th Edition.
- Gowenlock A.H. Varley's Practical Clinical Biochemistry, 6th Edition.
- Behrman R.E. Kliegman R.M., Jenson H. B. Nelson Text Book of Pediatrics, 17th Edition

**SEROLOGY**



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**\* HEPATITIS B SURFACE ANTIGEN, SERUM**

HEPATITIS B SURFACE ANTIGEN

NON REACTIVE

NON REACTIVE

METHOD : IMMUNOASSAY

**\* HIV ANTIBODIES, SERUM**

HIV-1 ANTIBODIES

NON REACTIVE

NON REACTIVE

METHOD : IMMUNOFILTERATION

HIV-2 ANTIBODIES

NON REACTIVE

NON REACTIVE

METHOD : IMMUNOFILTERATION

**\* HCV ABS, SERUM**

HEPATITIS C ABS

NON REACTIVE

NON REACTIVE

METHOD : IMMUNOFILTERATION

**Comments**

The test was performed by rapid test methodology which is a screening test.

**Interpretation(s)**

**HEPATITIS B SURFACE ANTIGEN, SERUM-**  
 Hepatitis B is caused by infection with HBV, a enveloped DNA agent that is classified as hepadnavirus. This test detects the presence of viral surface antigen (HbsAg) in serum sample and is indicative of an active HBV infection, either acute or chronic.

**Test Utility:**  
 HbsAg is the first serologic marker appearing in the serum 6-16 weeks following hepatitis B viral infection. In typical HBV infection, HbsAg will be detected 2-4 weeks before the liver enzyme levels (ALT) become abnormal and 3-5 weeks before patient develops jaundice. In acute cases HbsAg usually disappears 1-2 months after the onset of symptoms. Persistence of HbsAg for more than 6 months indicates development of either a chronic carrier state or chronic liver disease. The presence of HbsAg is frequently associated with infectivity. HbsAg when accompanied by Hepatitis Be antigen and/or hepatitis B viral DNA almost always indicates infectivity.

**Limitations:**  
 For diagnostic purposes, results should be used in conjunction with patient history and other hepatitis markers for diagnosis of acute or chronic infection. If the antibody results are inconsistent with clinical evidence, additional testing is suggested to confirm the result.

- HbsAg detection will only indicate the presence of surface antigens in the serum and should not be used as the sole criteria for diagnosis, staging or monitoring of HBV infection. This test may be negative during "window period" i.e. after disappearance of anti-HBs.

- The current assay being a highly sensitive test, may yield a small percentage of false positive reports. Hence all HbsAg positive specimens should be confirmed with an assay based upon Neutralisation of Human anti Hepatitis B Surface antibody.

**HIV ANTIBODIES, SERUM-Acquired Immunodeficiency syndrome (AIDS)** is caused by 2 types of human immunodeficiency viruses, collectively designated HIV. HIV is transmitted by sexual contact, exposure to blood or blood products, and prenatal infection of a fetus or perinatal infection of a newborn.

Phylogenetic analysis classifies HIV-1 into groups M (major), N (non-M, non-O), and O (outlier). HIV-2 is similar to HIV-1 in its structural morphology, genomic organization, cell tropism, in vitro cytopathogenicity, transmission routes, and ability to cause AIDS. However, HIV-2 is less pathogenic than HIV-1. HIV-2 infections have a longer latency period with slower progression to disease, lower viral titers, and lower rates of vertical and horizontal transmission. HIV-2 is endemic to West Africa but HIV-2 infections, at a low frequency compared to HIV-1, have been identified in the USA, Europe, Asia, and other regions of Africa. India predominantly has HIV-1M subtype C.

**Test Utility:**  
 The test is used as an aid in the diagnosis of HIV-1/HIV-2 infection. If HIV reactive result is obtained, confirmation of HIV antibody status is done using 2 more antibody tests (as per NACO guidelines-Strategy III algorithm). If indicated HIV serostatus may be confirmed by repeating antibody test on fresh specimen or HIV-1 Western Blot (Immunoblot) Assay (SRL test code #3012).

**Limitations:**

## LABORATORY REPORT



**SRL**  
Diagnostics

CLIENT CODE : C000027810

Cert. No. MC-2284

CLIENT'S NAME AND ADDRESS :  
FHSL BG ROAD - OPD  
SURVEY NO. 154/9, OPP. IIM-B,  
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BANGALORE 560020  
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SRL - FORTIS BANG. BANNERGHATTA  
154/9, BANNERGHATTA ROAD, OPP. IIM-B,  
BANGALORE, 560076  
KARNATAKA, INDIA  
Tel : 80-66214444,  
CIN - U74899PB1995PLC045956

PATIENT NAME : MR. RAMACHANDRA SHENOY

PATIENT ID : FH.10180255

ACCESSION NO : 0081TH007827 AGE : 55 Years SEX : Male

DATE OF BIRTH : 08-04-1965

DRAWN : 21-08-2020 10:23

RECEIVED : 21-08-2020 10:34

REPORTED : 21-08-2020 12:38

REFERRING DOCTOR : DR. Sandeep Nayak P

CLIENT PATIENT ID : UID:10180255

CLINICAL INFORMATION :

UID:10180255 REQNO-1470442

OPD-OPD

BILLNO-1113200PCS129804

Test Report Status	Final	Results	Biological Reference Interval	Units
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- Antibody tests may give false negative during the window period, an interval of 3 weeks to 6 months between the time of HIV Infection and the production of measurable antibodies to HIV seroconversion. Most people develop detectable antibodies approximately 30 days after infection, although some seroconvert later. The vast majority of people (97%) have detectable antibodies by three months after HIV infection; a 6-month window is extremely rare with modern antibody testing.
- Early antiretroviral therapy during the window period may alter antibody responses. This does not apply to individuals undergoing treatment with post-exposure prophylaxis (PEP).
- Antibody tests may yield false negative results in patients with X-linked agammaglobulinemia.
- A positive HIV result in an infant <18 months of age may not reflect the infant's HIV infection status. HIV antibodies persist in the sera of infants up to 18 months of age, due to transplacentally acquired maternal antibodies. HIV PCR testing is recommended in this age group for diagnosis.
- HCV ABS, SERUM-Hepatitis C Virus (HCV) is a blood borne flavivirus. It is one of the most important causes of post-blood transfusion as well as community acquired non-A Non-B hepatitis and chronic liver failure. Although the majority of infected individuals may be asymptomatic, HCV infection may develop into chronic hepatitis, cirrhosis and/or increased risk of hepatocellular carcinoma.

Notes & Limitations:

- HCV antibody is typically not detected until approximately 14 weeks after infection (or 5 weeks after appearance of the first biochemical marker of illness) and is almost always detectable by the late convalescent stage of infection. - A negative result may also be observed due to loss of HCV antigen, years following resolution of infection. Infants born to hepatitis C infected mothers may have delayed seroconversion to anti-HCV. Hence a negative result should be evaluated cautiously with respect to clinical findings. It is to be noted that absence of HCV antibodies after 14 weeks of exposure is strong evidence against HCV infection.
- Presence of HCV antibodies does not imply an active Hepatitis C infection but is indicative of both past and/or recent infection. It has been reported that as many as 90% of individuals receiving intravenous commercial immunoglobulin test falsely positive for HCV antibody. Also, patients with autoimmune liver disease may show a false positive HCV antibody result. Hence it is advisable to confirm a positive antibody result with a supplemental test. A positive result when followed by a positive supplemental test (i.e. HCV-RNA-PCR) suggests active hepatitis C infection.

CLINICAL PATH

URINALYSIS

COLOR	PALE YELLOW	
METHOD : PHYSICAL EXAMINATION		
APPEARANCE	CLEAR	
METHOD : PHYSICAL EXAMINATION	PH	4.7 - 7.5
METHOD : DOUBLE INDICATOR PRINCIPLE	7.0	
SPECIFIC GRAVITY	<=1.005	1.003 - 1.035
METHOD : PKA CHANGE OF POLYELECTROLYTES		
GLUCOSE	NEGATIVE	NOT DETECTED
METHOD : GOD-POD METHOD		
PROTEIN	NEGATIVE	NOT DETECTED
METHOD : PROTEIN-ERROR-OF INDICATORS PRINCIPLE		
KETONES	NEGATIVE	NOT DETECTED
METHOD : LEGAL'S REACTION		
BLOOD	NEGATIVE	NOT DETECTED
METHOD : PEROXIDASE		
BILIRUBIN	NEGATIVE	NOT DETECTED
METHOD : DIAZO METHOD		
UROBILINOGEN	NORMAL	NORMAL
METHOD : EHRLICH REACTION REFLECTANCE		



CLIENT CODE : C000027810

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UID:10180255 REQNO-1470442  
 OPD-OPD  
 BILLNO-111320OPCS129804

Test Report Status	Final	Results	Biological Reference Interval	Units
NITRITE		NEGATIVE	NOT DETECTED	
METHOD : GRIESS TEST				
WBC		2-3	0-5	/HPF
METHOD : MICROSCOPY				
EPITHELIAL CELLS		1-2	0-5	/HPF
METHOD : MICROSCOPY				
RED BLOOD CELLS		NOT DETECTED	NOT DETECTED	/HPF
METHOD : MICROSCOPY				
CASTS		NOT DETECTED		
METHOD : MICROSCOPY				
CRYSTALS		NOT DETECTED		
METHOD : MICROSCOPY				
BACTERIA		NOT DETECTED	NOT DETECTED	
METHOD : MICROSCOPY				
BILE SALTS		NOT DETECTED	NOT DETECTED	
METHOD : MICROSCOPY				
BILE PIGMENTS		NOT DETECTED	NOT DETECTED	
AMORPHOUS DEPOSITS		NOT DETECTED	NOT DETECTED	
METHOD : MICROSCOPY				
REMARKS		LEUCOCYTE ESTERASE : NEGATIVE		

**Interpretation(s)**

**URINALYSIS**-Routine urine analysis assists in screening and diagnosis of various metabolic, urological, kidney and liver disorders  
**Protein:** Elevated proteins can be an early sign of kidney disease. Urinary protein excretion can also be temporarily elevated by strenuous exercise, orthostatic proteinuria, dehydration, urinary tract infections and acute illness with fever

**Glucose:** Uncontrolled diabetes mellitus can lead to presence of glucose in urine. Other causes include pregnancy, hormonal disturbances, liver disease and certain medications.

**Ketones:** Uncontrolled diabetes mellitus can lead to presence of ketones in urine. Ketones can also be seen in starvation, frequent vomiting, pregnancy and strenuous exercise.

**Blood:** Occult blood can occur in urine as intact erythrocytes or haemoglobin, which can occur in various urological, nephrological and bleeding disorders.

**Leukocytes:** An increase in leukocytes is an indication of inflammation in urinary tract or kidneys. Most common cause is bacterial urinary tract infection.

**Nitrite:** Many bacteria give positive results when their number is high. Nitrite concentration during infection increases with length of time the urine specimen is retained in bladder prior to collection.

**pH:** The kidneys play an important role in maintaining acid base balance of the body. Conditions of the body producing acidosis/alkalosis or ingestion of certain type of food can affect the pH of urine.

**Specific gravity:** Specific gravity gives an indication of how concentrated the urine is. Increased specific gravity is seen in conditions like dehydration, glycosuria and proteinuria while decreased specific gravity is seen in excessive fluid intake, renal failure and diabetes insipidus.

**Bilirubin:** In certain liver diseases such as biliary obstruction or hepatitis, bilirubin gets excreted in urine.

**Urobilinogen:** Positive results are seen in liver diseases like hepatitis and cirrhosis and in cases of hemolytic anemia

**\*\*End Of Report\*\***

Please visit [www.srlworld.com](http://www.srlworld.com) for related Test Information for this accession  
**TEST MARKED WITH \*\* ARE OUTSIDE THE NABL ACCREDITED SCOPE OF THE LABORATORY.**

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