Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval
HAEMATOLOGY		
COMPLETE BLOOD COUNT		
HAEMOGLOBIN	14.3 g/dL	13 - 17
TOTAL LEUCOCYTE COUNT	4720 Cells/cu.mm	4000 - 11000
RED BLOOD CELL COUNT	4.90 mill/cu.mm	4.5 - 5.5
PACKED CELL VOLUME	41.90 %	40 - 50
MCV (MEAN CORPUSCULAR VOLUME)	85.51 fL	80 - 100
MCH (MEAN CORPUSCULAR HB)	29.18 pg	26 - 32
MCHC (MEAN CORPUSCULAR HB CONC)	34.13 g/dL	32 - 37
RED CELL DISTRIBUTION WIDTH	12.50 %	11.5 - 15.5
PLATELET COUNT	263000 /cu.mm	150000 - 450000
DIFFERENTIAL LEUCOCYTE COUNT		
SEGMENTED NEUTROPHILS	43 %	40 - 80
LYMPHOCYTES	**43 %**	20 - 40
MONOCYTES	8 %	2 - 10
EOSINOPHILS	5 %	1 - 6
BASOPHILS	1 %	0 - 2
ABSOLUTE LEUCOCYTE COUNT		
NEUTROPHIL	2030 cells/mm3	1800-7700
LYMPHOCYTE	2030 cells/mm3	1000-4800
MONOCYTE	378 cells/mm3	0-800
EOSINOPHIL	236 cells/mm3	0-450
BASOPHIL	47 cells/mm3	0-200

BLOOD PICTURE

RBCs are predominantly normocytic normochromic. WBC series appears essentially unremarkable. Platelets are adequate on smear.

Sample Type: K2 EDTA Whole blood
Methodology: Automated cell counter, Sysmex XN-1000 based on Optical / Fluorescence / Flow Cytometry / SLS .

ERYTHROCYTE SEDIMENTATION RATE		
E.S.R.WESTERGREN [Automated]	11 mm 1st Hr	0 - 15

**** End of HAEMATOLOGY Report ****

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval

DR. ARCHNA R. PAHWA
M.D. (PATHOLOGY)
(Authorised Signatory)

DR. ARJUN DANG
M.D. (PATHOLOGY)
(Director)

DR. MANAVI DANG
M.D. (PATHOLOGY)
(Director)

Authentication : 03-07-2021 11:10
Printed on : 03-07-2021 15:40

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval
BIOCHEMISTRY & IMMUNOTURBIDIMETRY		
HOMA IR (INSULIN RESISTANCE INDEX)		
GLUCOSE (Fasting) [Hexokinase]	94.00 mg/dL	60 - 100
PLASMA INSULIN LEVEL (FASTING) [ECLIA]	15.18 µIU/mL	2.6-24.9
BETA CELL FUNCTION (%B) [Calculated]	138.7 %	
INSULIN SENSITIVITY (%S) [Calculated]	50.9 %	
HOMA IR INDEX [Calculated]	1.96	< 2.5

The homeostatic model assessment (HOMA) is a method used to assessment of insulin resistance (IR) and beta-cell function. HOMA is a widely used tool in current clinical practice for the evaluation of insulin resistance, a predictor for the development of Type 2 diabetes mellitus even in individuals with normal glucose tolerance, and beta cell function.

BLOOD GLUCOSE (FASTING)		
GLUCOSE Fasting ,Plasma [HexoKinase]	94.00 mg/dL	60 - 100
C.P.K. ,Serum [U.V.Assay]	90.00 U/L	39 - 308
MAGNESIUM,Serum [Chlorophosphonazo III]	1.90 mg/dL	1.6-2.6
LIPID PROFILE		
CHOLESTEROL,Serum [Enzymatic Assay]	195.00 mg/dL	130 - 220
TRIGLYCERIDES,Serum [Enzymatic Colorimetric]	**151.00 mg/dL**	50 - 150
H.D.L. CHOLESTEROL,Serum [Homogeneous Enzymatic]	46.00 mg/dL	30 - 75
L.D.L. CHOLESTEROL,Serum [Homogeneous Enzymatic Assay]	**130.00 mg/dL**	30 - 100
VLDL CHOLESTEROL,Serum [Calculated]	**30.20 mg/dL**	10 - 30
NON H.D.L. CHOLESTEROL,Serum [Calculated]	149.00 mg/ dL	
CHOLESTEROL-HDL RATIO,Serum [Calculated]	4.24 : 1	
CHOLESTEROL-TRIGLYCERIDE RATIO,Serum [Calculated]	1.29 : 1	
KIDNEY FUNCTION TEST		
UREA,Serum [Kinetic Method]	24.60 mg/dL	10 - 50
BUN (BLOOD UREA NITROGEN),Serum	11.49 mg/dL	4.7 - 23.4
CREATININE,Serum [Kinetic Jaffe's method]	0.91 mg/dL	0.5-1.3
URIC ACID,Serum [Enzymatic Assay]	**7.60 mg/dL**	2 - 7
IONIZED CALCIUM,Serum [BAPTA Method]	1.17 mmol/L	1.1-1.25
TOTAL CALCIUM,Serum [BAPTA Method]	9.36 mg/dL	8.6-10
PHOSPHORUS,Serum [Molybdate UV]	4.00 mg/dL	2.5-4.5
SODIUM,Serum [Ion selective electrode]	136.00 mmol/L	132 - 150

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval
POTASSIUM,Serum [Ion selective electrode]	4.70 mmol/L	3.5 - 5
CHLORIDE,Serum [Ion selective electrode]	98.00 mmol/L	98 - 107
LIVER FUNCTION TEST		
BILIRUBIN (Total),Serum [Diazo Method]	0.50 mg/dL	0.2 - 1.00
BILIRUBIN (DIRECT),Serum [Diazo Method]	0.16 mg/dL	0-0.30
BILIRUBIN (INDIRECT),Serum [Calculated]	0.34 mg/dL	0.1 - 0.8
S.G.O.T. Serum [Kinetic Method]	23.00 U/L	5 - 40
S.G.P.T. Serum [Kinetic Method]	31.00 U/L	5 - 41
ALKALINE PHOSPHATASE,Serum [Kinetic (PNP)]	69.00 U/L	40 - 129
G.G.T.P. Serum [Enzymatic Assay]	19.00 U/L	10 - 71
TOTAL PROTEINS,Serum [Biuret method]	6.90 g/dL	6 - 8.5
ALBUMIN,Serum [Colorimetric BCG]	4.10 g/dL	3.5 - 5
GLOBULIN,Serum [Calculated]	2.80 g/dL	
ALBUMIN/GLOBULIN RATIO,Serum [Calculated]	1.46	1.1 - 2.2

**** End of BIOCHEMISTRY & IMMUNOTURBIDIMETRY Report ****

DR. MUKTA SEHGAL
H.O.D. (BIOCHEMISTRY)
(Authorised Signatory)

DR. MANAVI DANG
M.D. (PATHOLOGY)
(Director)

Authentication : 03-07-2021 11:10
Printed on : 03-07-2021 15:40

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval

IMMUNO ASSAYS

THYROID PROFILE

FREE TRIIODOTHYRONINE [FT3], Serum [ECLIA]	2.47 pg/mL	2.00-4.40
FREE THYROXINE [FT4], Serum [ECLIA]	1.22 ng/dL	0.93-1.70
T.S.H.[ULTRASENSITIVE], Serum [ECLIA]	1.67 µIU/mL	0.27-4.20

- Thyroid profile is done to evaluate thyroid gland function and help diagnose thyroid disorders causing hypothyroidism (decreased thyroid activity) and hyperthyroidism (increased thyroid activity).
- The most common causes of thyroid dysfunction are autoimmune diseases. Graves-disease causes hyperthyroidism and Hashimoto thyroiditis causes hypothyroidism. Both hyperthyroidism and hypothyroidism can also be caused by thyroiditis, thyroid cancer.
- Assays detecting unbound or free form of thyroid hormones are highly sensitive to detect thyroid dysfunction. They reflect the active form of the hormone, unaffected by non-thyroidal factors.
- The FT3 and FT4 levels fluctuate significantly during birth and can remain much higher than adult values during the first month after birth. Proper clinical interpretation and correlation of the reports in neonates is mandatory and preterm thyroid profiles should be interpreted with caution.

Biological reference Interval:

Age Group	FT3 in pg/mL	FT4 in ng/dL	TSH in uIU/ml
<12 months	2.9 - 6.8	1.1 - 2.0	1.36 - 8.8
1 - 6 Years	2.5 - 5.3	0.9 - 1.7	0.85 - 6.5
7 - 12 Years	2.5 - 5.6	1.1 - 1.7	0.28 - 4.3
13 - 17 Years	2.4 - 5.0	1.1 - 1.8	0.28 - 4.3
Adults	2.0 - 4.4	0.93 - 1.7	0.27 - 4.2
Cord Blood>37 Weeks	Not available	1.1 - 2.0	2.3 - 13.2

Pregnancy	FT3 in pg/mL	FT4 in ng/dL	TSH in uIU/mL (As per American Thyroid Association)
1st Trimester	2.5 - 3.9	0.9 - 1.5	0.100 - 2.500
2nd Trimester	2.1 - 3.6	0.8 - 1.3	0.200 - 3.000
3rd Trimester	2.0 - 3.3	0.7 - 1.2	0.300 - 3.000

NOTE: TSH LEVELS ARE SUBJECT TO CIRCADIAN VARIATION, REACHING PEAK LEVELS BETWEEN 2-4 A.M. AND AT A MINIMUM BETWEEN 6-10 P.M. THE VARIATION IS OF THE ORDER OF 50 TO 206%, HENCE TIME OF THE DAY HAS INFLUENCE ON THE MEASURED SERUM TSH CONCENTRATIONS. (REF: TIETZ TEXTBOOK OF CLINICAL CHEMISTRY AND MOLECULAR DIAGNOSTICS-5TH EDITION Page 123). FLUCTUATING TSH VALUES SHOULD BE CLINICALLY CORRELATED.

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval
GLYCOSYLATED HAEMOGLOBIN [HBA1C]		
GLYCOSYLATED HAEMOGLOBIN [HBA1C],Whole Blood [HPLC]	6.30 %	4.4-6.5
*Mean Plasma Glucose	147 mg/dL	

ANALYZER: Tosoh Automated Glycohemoglobin Analyzer HLC-723G8 (G8)
METHODOLOGY: HPLC

- This assay is useful for diagnosing Diabetes and evaluating long term control of blood glucose concentrations in diabetic patients. It reflects the mean glucose concentration over the previous period of 8 - 12 weeks and is a better indicator of long-term glycemic control as compared with blood and urine glucose levels due to lesser day to day variation.
- Specifically, the A1C test measures what percentage of hemoglobin is coated with sugar (glycated). Higher the A1C level, the poorer is blood sugar control and higher is the risk of diabetes complications.
- Disorders associated with a decreased erythrocyte life-span, as well as individuals with recent and significant blood loss and chronic renal failure, exhibit low glycated Hb values.
- The test is performed by Gold standard technique of HPLC.
- Effectiveness of A1C may be limited in conditions that affect RBC turnover, such as hemolytic anemia, glucose-6-phosphate dehydrogenase deficiency, recent blood transfusions, drugs that stimulate erythropoiesis, end-stage kidney disease, and pregnancy.
- Hemoglobin variants may interfere with A1c results. Fructosamine level estimation is recommended in such cases.

As per American Diabetes Association (ADA)	
Reference Group	**HbA1c in %**
Nondiabetic adults >=18 years	<5.7
At risk (Prediabetes)	5.7 -6.4
Diagnosing Diabetes	>=6.5

Comment: The final report has been generated after reviewing the HPLC Chromatogram.

IgE LEVEL,Serum [ECLIA]	88.34 IU/mL	5 - 100

- This assay is useful for evaluation of patients suspected with allergic disease, primary immunodeficiency, infections, malignancies, other inflammatory diseases and allergic bronchopulmonary aspergillosis.

- IgE is the most important trigger molecule for allergic information. The level of IgE is low during the first year of life, gradually increases with age and reaches adult levels after 10 years.

- IgE is a mediator of allergic response. Quantitative measurement can provide useful information for differential diagnosis of atopic and non-atopic disease. Patients with atopic diseases like allergic asthma, allergic rhinitis & atopic dermatitis have moderately elevated IgE levels.

- An elevated/normal concentration does not indicate presence or absence of an allergic disease and must be interpreted in the clinical context of the patient, including age, gender, travel history, potential allergen exposure and family history.

- The total IgE test measures the overall quantity of immunoglobulin E in the blood, not the amount of a specific type. It can be used to detect an allergic response in the body rather than a specific allergy. This test may compliment the information provided by allergy tests that detect allergen-specific IgE

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval

COMMENT: For testing options to specific allergies (food/respiratory), kindly contact front office for details.

VITAMIN B-12 LEVEL,Serum [ECLIA]	277.00 pg/mL	197 - 771

- Vitamin B12 (cobalamin) is a water-soluble vitamin and is normally found in animal products including meats, eggs and milk & milk products. It cannot be produced in the body and must be supplied by the diet.
- It is necessary for hematopoiesis and normal neuronal function. As it is obtained mainly from animal proteins, in humans, it requires intrinsic factor (IF) for absorption.
- Vitamin B12 deficiency may be due to lack of IF secretion by the gastric mucosa (pernicious anaemia) or intestinal malabsorption. It is also seen in vegetarians with inadequate B12 intake.
- Its deficiency frequently causes macrocytic anaemia, glossitis, peripheral neuropathy, weakness, ataxia, poor coordination and affective behavioural changes.
- An increase in the levels of Vitamin B 12 is mostly due to excessive ingestion of multivitamin capsules with B12. Conditions such as liver diseases and myeloproliferative disorders occasionally exhibit increased levels.
- Serum homocysteine levels are also elevated in B12 deficiency.

®	**VITAMIN D-3 LEVEL,Serum** [ECLIA]	**20.50 ng/mL**	25-100

Interpretation:

Less than 12 ng/ml: Definitely deficient
12-25 ng/ml: Insufficient
25 - 100 ng/ml: Adequate
More than 100 ng/ml: Toxic

THE TEST IS BEING PERFORMED ON FDA APPROVED FULLY AUTOMATED REFERENCE IVD PLATFORM .
The two most important forms of Vitamin D are Vitamin D3 and Vitamin D2. In contrast to Vitamin D3, Vitamin D2 has to be taken up with food.In the human body Vitamin D3 and D2 are bound to Vitamin D- binding protein in plasma and transported to liver where both are hydroxylated in position 25 forming 25-OH Vitamin D. 25-OH Vitamin D is the metabolite that should be measured in blood to determine the overall Vitamin D status because it is the major storage form of Vitamin D in the human body.More than 95% of 25-OH Vitamin D, measurable in serum, is 25-OH Vitamin D3 whereas 25-OH Vitamin D2 reaches measurable levels only in patients taking Vitamin D2 supplements. Vitamin D is a common cause of secondary hyperparathyroidism. Elevations of PTH levels, especially in elderly Vitamin D deficient adults can result in osteomalacia, increased bone turnover, reduced bone mass and risk of bone fractures.

Reference - Position paper of the International Osteoporosis Foundation.

**** End of IMMUNO ASSAYS Report ****

® MARKED RESULT IS RECHECKED AND VERIFIED

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval

DR. MUKTA SEHGAL
H.O.D. (BIOCHEMISTRY)
(Authorised Signatory)

DR. MANAVI DANG
M.D. (PATHOLOGY)
(Director)

Authentication : 03-07-2021 11:10
Printed on : 03-07-2021 15:40

Sample Collection Date	03-07-2021 08:35	**DDL Center**	Dr.Dangs Lab
Lab Ref. No.	210175566		
Name	MR. RAHUL GOYAL	**Age / Sex**	48 Years / MALE

Test (Methodology)	Result	Biological Reference Interval
SEROLOGY & IMMUNOLOGY		
C-REACTIVE PROTEIN [High Sensitivity], Serum [Immunoturbidimetry]	0.26 mg/dL	0 - 0.5

Biological reference value: < 0.5 mg/dL

Note: Persistent elevation of hs-CRP levels above 1.0 mg/dL may be associated with infection and inflammation.

Interpretation:

1. The hs-CRP test accurately detects lower levels than the standard CRP test and is more precise when measuring baseline (i.e. normal) concentrations and enables a measure of chronic inflammation.

2. This test is a non-specific marker of inflammation and is used for evaluation of inflammatory disorders and associated diseases, infections and tissue injury. It's concentrations increase rapidly and dramatically in response to tissue injury or inflammation.

3. hs-CRP is useful for assessment of risk of developing myocardial infarction in individuals, presenting with acute coronary syndrome.

Relative cardiovascular risk is Low if hs-CRP value is <0.1 mg/dL, Moderate if 0.1 - 0.3 mg/dL and High if >0.3 mg/dL

4. hs-CRP is also useful for assessment of risk of developing cardiovascular disease or ischemic events in individuals who do not manifest disease at present.

5. Increase in CRP values are non-specific for many disease processes and should not be interpreted without a complete clinical evaluation.

6. It is important to monitor the CRP concentration during the acute phase of illness.

Note: Conversion factor: mg/dL X 10 = mg/L

**** End of SEROLOGY & IMMUNOLOGY Report ****

DR. MUKTA SEHGAL	DR. DEVJANI DE	DR. ARJUN DANG	DR. MANAVI DANG
H.O.D. (BIOCHEMISTRY)	M.D. (MICROBIOLOGY)	M.D. (PATHOLOGY)	M.D. (PATHOLOGY)
(Authorised Signatory)	(Authorised Signatory)	(Director)	(Director)

Authentication : 03-07-2021 11:10
Printed on : 03-07-2021 15:40

CONDITIONS OF REPORTING

- In case of alarming or unexpected test results you are advised to contact the laboratory immediately for further discussions and action. Laboratory results are meant to be correlated with the patient's clinical history.
- The report will carry the name and age provided at the time of registration.
- Reporting of tests will be as per defined laboratory turn around time for each test. The same will be informed to the patient during first point of contact i.e. registration or phlebotomy as the case may be.
- Test results & reference ranges vary depending on the technology and methodology used.
- Rarely a second sample may be requested for an indeterminate result or any other pre-analytical / analytical reason.
- Reports can be received either as a hard copy or an email on your personal ID. Reports can also be delivered via courier. Payments can be made online on our website. Only reports with no pending payments are mailed, uploaded or dispatched.
- Reports can also be accessed via Dr. Dangs lab website or through the Dr. Dangs mobile application on IOS and android using the unique ID and password provided to you during registration or received by you via SMS.
- Home collection sample facility is provided with prior appointment. Request for same to be given on 999-999-2020, booked online on **www.drdangslab.com** or through the Dr. Dangs mobile application on IOS and android.
- A digital invoice for tests performed is available on our website and can be accessed by using the unique I.D. and password provided.
- To maintain confidentiality, certain reports may not be mailed at the discretion of the management.
- In case of any queries pertaining to your test results or to provide feedback/suggestions please call us on 01145004200 or mail us at **info@drdangslab.com.**
- 48 hour notice is required for the issuing of slides and blocks.
- Test results are not valid for medico legal purposes.
- The courts (forums) at Delhi shall have exclusive jurisdiction in all disputes/claims concerning the tests and/or results of the tests.
- * For any change in timings, please visit our website.

@drdangslab

DR DANGS LAB LLP
C - 2/1, SDA, Aurobindo Marg, New Delhi -110016 | 011-45004200 | Hours : 7:30 AM - 7:00 PM
G.F. Building No. 25, Central Market, West Punjabi Bagh, New Delhi-110026 | 98-1067-8165| Hours : 8:00 AM - 6:00 PM*
G.F. Palm Springs Plaza, Golf Course Road, Sector 53, Gurugram, 122001 | 98-1888-1065, 0124-4653750 | Hours : 8:00 AM - 6:00 PM*
www.drdangslab.com | info@drdangslab.com | Home Collection : 999-999-2020
(Sunday Closed)

MC-2577