TATA 1mg Labs

TATA 1MG Technologies Pvt. Ltd
LABORATORY: Plot No. Y-17, Block - EP, Electronic Complex, Bidhannagar, Kolkata - 700091
www.1mg.com/labs
care@1mg.com
CIN : U74140DL2015PTC279229

REGISTERED OFFICE:
LEVEL 3, Vasant Square Mall, Pocket V, Sector B, Vasant Kunj New Delhi - 110070

MC - 4961

PO No :PO2675209545-197

Name	: Ms.MEGHNA BAL	Client Name	: TATA 1MG KOLKATA
Age/Gender	: 21/Female	Registration Date	: 06-Nov-23 09:08 AM
Patient ID	: KOL308163	Collection Date	: 06/Nov/2023 08:10AM
Barcode ID/Order ID	: D6708889 / 8391868	Sample Receive Date	: 06/Nov/2023 09:28AM
Referred By	: Dr.	Report Status	: Final Report
Sample Type	: Whole Blood-EDTA	Report Date	: 06/Nov/2023 01:16PM

HAEMATOLOGY

ENERGY SCREENING PACKAGE

Test Name	Result	Unit	Bio. Ref. Interval	Method
Complete Blood Count				
Hemoglobin	**11.6**	g/dL	12.0-15.0	Cyanide-free SLS-Hemoglobin
RBC	**5.25**	10^6/cu.mm	3.8-4.8	Impedance variation Measure
HCT	**35.2**	%	36 - 46	Derived from - Impedance
MCV	**67.1**	fl	83 - 101	Derived from - Impedance
MCH	**22.1**	pg	27 - 32	Derived from - Impedance
MCHC	33.0	g/dL	31.5 - 34.5	Derived from - Impedance
RDW-CV	**17.7**	%	11.6-14	Derived from - Impedance
Total Leucocyte Count	9.96	10^3/µL	4 - 10	Impedance and Absorbency/Microscopy
Differential Leucocyte Count				
Neutrophils	56.4	%	40-80	Impedance and Absorbency/Microscopy
Lymphocytes	36.3	%	20-40	Impedance and Absorbency/Microscopy
Monocytes	5.8	%	2-10	Impedance and Absorbency/Microscopy
Eosinophils	1.4	%	1-6	Impedance and Absorbency/Microscopy
Basophils	0.1	%	0-2	Impedance / Microscopy
Absolute Leucocyte Count				
Absolute Neutrophil Count	5.62	10^3/µL	2-7	Impedance and Absorbency/Calculated
Absolute Lymphocyte Count	**3.62**	10^3/µL	1-3	Impedance and Absorbency/Calculated
Absolute Monocyte Count	0.58	10^3/µL	0.2-1	Impedance and Absorbency/Calculated
Absolute Eosinophil Count	0.14	10^3/µL	0.02-0.5	Impedance and Absorbency/Calculated

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HAEMATOLOGY

ENERGY SCREENING PACKAGE

Test Name	Result	Unit	Bio. Ref. Interval	Method
Absolute Basophil Count	**0.01**	10^3/µL	0.02-0.1	Impedance/Calculated
Platelet Count	188	10^3/µL	150 - 410	Impedance/Microscopy
MPV	11.1	fl	6.5 - 12	Derived from Impedance
PDW	**28**	fl	9-17	Derived from Impedance

Comment:

- As per the recommendation of International council for Standardization in Hematology, the differential leucocyte counts are additionally being reported as absolute numbers of each cell in per unit volume of blood.

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Patient ID	: KOL308163	Collection Date	: 06/Nov/2023 08:10AM
Barcode ID/Order ID	: D6708888 / 8391868	Sample Receive Date	: 06/Nov/2023 09:24AM
Referred By	: Dr.	Report Status	: Final Report
Sample Type	: Serum	Report Date	: 06/Nov/2023 12:16PM

BIOCHEMISTRY

ENERGY SCREENING PACKAGE

Test Name	Result	Unit	Bio. Ref. Interval	Method
Serum Electrolyte				
Sodium	139	mEq/L	132-146	Indirect ISE
Potassium	4.20	mEq/L	3.5-5.5	Indirect ISE
Chloride	104.0	mEq/L	99-109	Indirect ISE

Comment:

- Kidneys actively reabsorb or excrete electrolytes to maintain the electrolyte balance of the body. Owing to their small size, almost all electrolytes are filtered at the glomerulus. After filtration, most of the electrolytes are absorbed back at the tubular level but any problem at the tubular level will result in non- absorption and excessive loss of electrolytes in urine. Sodium along with chloride, potassium, and water is important in the regulation of osmotic pressure and water balance between intracellular and extracellular fluids.
- An increase in sodium concentration (hypernatremia) may indicate impaired sodium excretion or dehydration. Hypernatremia is rare but occurs most often in the elderly and is often hospital-acquired. A decrease in sodium concentration (hyponatremia) may reflect over hydration, abnormal sodium loss, or decreased sodium intake, seen in conditions such as nephrotic syndrome, heart failure, generalized edema, and cirrhosis.
- Hypokalemia and hyperkalemia are caused by changes in potassium intake, altered excretion, or transcellular shifts. Diuretic use and gastrointestinal losses are common causes of hypokalemia, whereas kidney disease, hyperglycemia, and medication use are common causes of hyperkalemia. When severe, potassium disorders can lead to life-threatening cardiac conduction disturbances and neuromuscular dysfunction. Therefore, a first priority is determining the need for urgent treatment through a combination of history, physical examination, laboratory, and electrocardiography findings.
- Serum chloride concentration can be elevated above the normal range – hyperchloremia - either by the addition of excess chloride to the ECF compartment or by the loss of water from this compartment, and vice versa. The serum chloride concentration can be reduced below the normal range (hypochloremia) by the loss of chloride from the ECF or the addition of water to this compartment.Hyperchloremia is common in critically ill people.Severe dehydration, Diarrhea and excessive urination, Metabolic acidosis, Kidney disease, Chemotherapy may lead to hyperchloremia. Newborn babies often have hyperchloremia because their chloride levels rise in the week after birth. However, this is nothing to worry about, as the levels rise naturally and do not indicate a health problem.Hypochloremia may be seen in Low salt intake in the diet, Metabolic alkalosis, Certain medications, such as diuretics and laxatives, as these may reduce the amount of fluid in the body, Addison's Disease, etc.

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Patient ID	: KOL308163	Collection Date	: 06/Nov/2023 08:10AM
Barcode ID/Order ID	: D6708887 / 8391868	Sample Receive Date	: 06/Nov/2023 09:26AM
Referred By	: Dr.	Report Status	: Final Report
Sample Type	: Fluoride Plasma F	Report Date	: 06/Nov/2023 12:16PM

BIOCHEMISTRY

ENERGY SCREENING PACKAGE

Test Name	Result	Unit	Bio. Ref. Interval	Method
Glucose - Fasting				
Glucose - Fasting	85	mg/dL	70.0-99.0	Hexokinase

Fasting Plasma Glucose (mg/dL)	2 hr plasma Glucose (mg/dL)	Diagnosis
99 or below	139 or below	Normal
100 to 125	140 to 199	Pre-Diabetes (IGT)
126 or above	200 or above	Diabetes

Reference : American Diabetes Association

Comment:

Impaired glucose tolerance (IGT) fasting, means a person has an increased risk of developing type 2 diabetes but does not have it yet. A level of 126 mg/dL or above, confirmed by repeating the test on another day, means a person has diabetes.
IGT (2 hrs Post meal), means a person has an increased risk of developing type 2 diabetes but does not have it yet. A 2-hour glucose level of 200 mg/dL or above, confirmed by repeating the test on another day, means a person has diabetes

Plasma Glucose Goals	For people with Diabetes
Before meal	70-130 mg/dL
2 Hours after meal	Less than 180 mg/dL
HbA1c	Less than 7%

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Barcode ID/Order ID	: D6708888 / 8391868	Sample Receive Date	: 06/Nov/2023 09:24AM
Referred By	: Dr.	Report Status	: Final Report
Sample Type	: Serum	Report Date	: 06/Nov/2023 12:16PM

BIOCHEMISTRY

ENERGY SCREENING PACKAGE

Test Name	Result	Unit	Bio. Ref. Interval	Method
Iron Studies, Basic				
Iron Serum	**39**	µg/dL	50-170	Ferrozine
Unsaturated Iron Binding Capacity	437	µg/dL	120-470	Ferene
Total Iron Binding Capacity (TIBC)	**476**	µg/dL	240-450	Calculated
Transferrin Saturation	**8.19**	%	16 - 50	Calculated

Comment:

Iron is an essential trace mineral element which forms an important component of hemoglobin, metallocompounds and Vitamin A. Deficiency of iron is seen in iron deficiency and anaemia of chronic disorders.
Increased iron concentration are seen in hemolytic anaemias, hemochromatosis and acute liver disease. Serum Iron alone is unreliable due to considerable physiologic diurnal variation in the results with highest values in the morning and lowest values in the evening as well as variation in response to iron therapy .

Total Iron Binding capacity (TIBC) is a direct measure of the protein Transferrin which transports iron from the gut to storage sites in the bone marrow. Increased levels of TIBC suggest that total iron body stores are low, increased concentration may be the sign of Iron deficiency anaemia, polycythemia vera ,and may occur during the third trimester of pregnancy. Decreased levels may be seen in hemolytic anaemia, hemochromatosis, chronic liver disease, hypoproteinemia ,malnutrition.

Unsaturated Iron Binding Capacity (UIBC) is increased in low iron state and decreased in high iron concentration such as hemochromatosis. In case of anaemia of chronic disease the patient may be anaemic but has adequate iron reserve and a low uIBC.

Transferrin Saturation occurs in Idiopathic hemochromatosis and Transfusional hemosiderosis where no unsaturated iron binding capacity is available for iron mobilization. Similar condition is seen in congenital deficiency of Transferrin.

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Sample Type	: Serum	Report Date	: 06/Nov/2023 01:01PM

Immunology

ENERGY SCREENING PACKAGE

Test Name	Result	Unit	Bio. Ref. Interval	Method
Vitamin D (25-OH)	**9.3**	ng/ml	Deficiency:< 20, Insufficiency:20-29, Sufficiency:30 - 100, Toxicity possible:> 100	CLIA

Comment:

- Vitamin D is a fat-soluble steroid prohormone involved in the intestinal absorption of calcium and the regulation of calcium homeostasis.
- Two forms of vitamin D are biologically relevant - vitamin D3 (Cholecalciferol) and vitamin D2 (Ergocalciferol).
- Both vitamins D3 and D2 can be absorbed from food but only an estimated 10-20perc. of vitamin D is supplied through nutritional intake.
- Vitamin D is converted to the active hormone 1,25-(OH)2-vitamin D (Calcitriol) through two hydroxylation reactions. The first hydroxylation converts vitamin D into 25-OH vitamin D and occurs in the liver. The second hydroxylation converts 25-OH vitamin D into the biologically active 1,25-(OH)2-vitamin D and occurs in the kidneys as well as in many other cells of the body.
- Most cells express the vitamin D receptor and about 3perc. of the human genome is directly or indirectly regulated by the vitamin D endocrine system.
- The major storage form of vitamin D is 25-OH vitamin D and is present in the blood at up to 1,000 fold higher concentration compared to the active 1,25-(OH)2-vitamin D. 25-OH vitamin D has a half-life of 2-3 weeks vs. 4 hours for 1,25-(OH)2-vitamin D. Therefore, 25-OH vitamin D is the analyte of choice for determination of the vitamin D status.
- Risk factors for vitamin D deficiency include low sun exposure, inadequate intake, decreased absorption, abnormal metabolism, vitamin D resistance and and liver or kidney diseases.
- Vitamin D deficiency is a cause of secondary hyperparathyroidism and diseases resulting in impaired bone metabolism (like rickets, osteomalacia).
- Recently, many chronic diseases such as cancer, high blood pressure, osteoporosis and several autoimmune diseases have been linked to vitamin D deficiency.
- The assay measures both D2 (Ergocalciferol) and D3 (Cholecalciferol) metabolites of vitamin D

Utility Quantitative determination of 25-hydroxyvitamin D (25-OH vitamin D).

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Immunology

ENERGY SCREENING PACKAGE

Test Name	Result	Unit	Bio. Ref. Interval	Method
Vitamin B12	230.0	pg/ml	211-911	CLIA

Comment:

- **Vitamin B12** along with **folate** is essential for DNA synthesis and myelin formation.
- **Decreased levels** are seen in anaemia, term pregnancy, vegetarian diet, intrinsic factor deficiency, partial gastrectomy/ileal damage, celiac disease, oral contraceptive use, parasitic infestation, pancreatic deficiency, treated epilepsy, smoking, hemodialysis and advanced age.
- **Increased levels** are seen in renal failure, hepatocelluar disorders, myeloproliferative disorders and at times with excess supplementation of vitamins pills.

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

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TATA 1mg | Labs

NABL certificate and Scope

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Tata 1mg Labs, India's trusted diagnostics lab chain, is serving over a million customers each year across 50+ cities. We offer a broad range of tests through an extensive catalog and cutting-edge technology. Our commitment to providing high-quality healthcare is supported by 11 state-of-the-art laboratories, ensuring easy access to our services across the country.

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Lucknow | Ahmedabad | Bangalore | Chennai | Hyderabad | Dehradun

Our Promise

- Hygienic sample collection
- In accordance with international norms & clinical safetystandards
- Expert team of medical professionals
- Doctor-verified reports with 3-step review process

Conditions of Laboratory Testing & Reporting:
Test results released pertain to the sample, as received. Laboratory investigations are only a tool to facilitate in arriving at a diagnosis and should be clinically correlated by the interpreting clinician. Result delays may happen because of unforeseen or uncontrollable circumstances. Test report may vary depending on the assay method used. Test results may show inter-laboratory variations. Test results are not valid for medico-legal purposes. Please mail your queries related to test results to Customer Care mail ID cs.labs@1mg.com

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