



LABORATORY TEST REPORT

Name	: Mr. SRIDHAR		
Sample ID	: MB1409855		
Age/Gender	: 37 Years/Male	Reg. No	: 0012501220095
Referred by	: Dr. Others	SPP Code	: SPL-STS-760
Referring Customer	: SELF	Collected On	: 22-Jan-2025 10:24 AM
Primary Sample	: Whole Blood	Received On	: 22-Jan-2025 12:12 PM
Sample Tested In	: Serum	Reported On	: 22-Jan-2025 01:37 PM
Client Address	:	Report Status	: Final Report



CLINICAL BIOCHEMISTRY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
Estimated Glomerular Filtration Rate (eGFR):			
GFR by MDRD Formula <small>(Method: Calculated)</small>	103	mL/min/1.73m ²	74 - 138
BUN/Creatinine Ratio			
BUN / Creatinine Ratio	11.22	Ratio	6 - 22
Urea/Creatinine Ratio			
Urea / Creatinine Ratio	24.08	Ratio	20-35

*** End Of Report ***





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HAEMATOLOGY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
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COMPLETE BLOOD COUNT (CBC)

Haemoglobin (Hb) <small>(Method: Cynmeth Method)</small>	15.5	g/dL	13-17
RBC Count <small>(Method: Cell Impedance)</small>	4.98	10 ¹² /L	4.5-5.5
Haematocrit (HCT) <small>(Method: Calculated)</small>	42.5	%	40-50
MCV <small>(Method: Calculated)</small>	85	fl	81-101
MCH <small>(Method: Calculated)</small>	31.2	pg	27-32
MCHC <small>(Method: Calculated)</small>	32.0	g/dL	32.5-34.5
RDW-CV <small>(Method: Calculated)</small>	13.0	%	11.6-14.0
Platelet Count (PLT) <small>(Method: Cell Impedance)</small>	252	10 ⁹ /L	150-410
Total WBC Count <small>(Method: Impedance)</small>	7.7	10 ⁹ /L	4.0-10.0
Neutrophils <small>(Method: Cell Impedance)</small>	62	%	40-70
Absolute Neutrophils Count <small>(Method: Impedance)</small>	4.77	10 ⁹ /L	2.0-7.0
Lymphocytes <small>(Method: Cell Impedance)</small>	30	%	20-40
Absolute Lymphocyte Count <small>(Method: Impedance)</small>	2.31	10 ⁹ /L	1.0-3.0
Monocytes <small>(Method: Microscopy)</small>	06	%	2-10
Absolute Monocyte Count <small>(Method: Calculated)</small>	0.46	10 ⁹ /L	0.2-1.0
Eosinophils <small>(Method: Microscopy)</small>	02	%	1-6
Absolute Eosinophils Count <small>(Method: Calculated)</small>	0.15	10 ⁹ /L	0.02-0.5
Basophils <small>(Method: Microscopy)</small>	00	%	1-2
Absolute Basophil ICount <small>(Method: Calculated)</small>	0.00	10 ⁹ /L	0.0-0.3

Morphology

WBC	Within Normal Limits
RBC	Normocytic normochromic blood picture.
Platelets <small>(Method: Microscopy)</small>	Adequate.





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Primary Sample	: Whole Blood	Received On	: 22-Jan-2025 12: 12 PM
Sample Tested In	: Whole Blood EDTA	Reported On	: 22-Jan-2025 12: 25 PM
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HAEMATOLOGY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
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Blood Picture - Peripheral Smear Examination

Red Blood Cells <small>(Method: Microscopy)</small>	Normocytic normochromic		
White Blood Cells <small>(Method: Microscopy)</small>	Within normal limits		
Platelets <small>(Method: Microscopy)</small>	Adequate		
Hemoparasites <small>(Method: Microscopy)</small>	Not seen.		
Impression	Normocytic normochromic blood picture.		
Advice	Correlate clinically		





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Primary Sample	:	Received On	: 22-Jan-2025 12:12 PM
Sample Tested In	: Urine	Reported On	: 22-Jan-2025 01:08 PM
Client Address	:	Report Status	: Final Report



CLINICAL PATHOLOGY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
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Complete Urine Analysis (CUE)

Physical Examination

Colour	Pale Yellow	Straw to light amber
Appearance	Clear	Clear

Chemical Examination

Glucose <small>(Method: Strip Reflectance)</small>	Negative	Negative
Protein <small>(Method: Strip Reflectance)</small>	Negative	Negative
Bilirubin (Bile) <small>(Method: Strip Reflectance)</small>	Negative	Negative
Urobilinogen <small>(Method: Ehrlich's reagent)</small>	Negative	Negative
Ketone Bodies <small>(Method: Strip Reflectance)</small>	Negative	Negative
Specific Gravity <small>(Method: Strip Reflectance)</small>	1.025	1.000 - 1.030
Blood <small>(Method: Strip Reflectance)</small>	Negative	Negative
Reaction (pH) <small>(Method: Reagent Strip Reflectance)</small>	5.5	5.0 - 8.5
Nitrites <small>(Method: Strip Reflectance)</small>	Negative	Negative
Leukocyte esterase <small>(Method: Reagent Strip Reflectance)</small>	Negative	Negative

Microscopic Examination (Microscopy)

PUS(WBC) Cells <small>(Method: Microscopy)</small>	03-04	/hpf	00-05
R.B.C. <small>(Method: Microscopic)</small>	Nil	/hpf	Nil
Epithelial Cells <small>(Method: Microscopic)</small>	02-03	/hpf	00-05
Casts <small>(Method: Microscopic)</small>	Absent		Absent
Crystals <small>(Method: Microscopic)</small>	Absent		Absent
Bacteria	Nil		Nil
Budding Yeast Cells <small>(Method: Microscopy)</small>	Nil		Absent





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Referring Customer	: SELF	Reported On	: 22-Jan-2025 01:34 PM
Primary Sample	: Whole Blood	Report Status	: Final Report
Sample Tested In	: Plasma-NaF(F), Serum		
Client Address	:		



CLINICAL BIOCHEMISTRY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
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Glucose Fasting (F) 93 mg/dL 70-100
(Method: Hexokinase)

Interpretation of Plasma Glucose based on ADA guidelines 2018

Diagnosis	Fasting Plasma Glucose(mg/dL)	2hrs Plasma Glucose(mg/dL)	HbA1c(%)	RBS(mg/dL)
Prediabetes	100-125	140-199	5.7-6.4	NA
Diabetes	> = 126	> = 200	> = 6.5	>=200(with symptoms)

Reference: Diabetes care 2018:41(suppl.1):S13-S27

Blood Urea Nitrogen (BUN)-Serum

Blood Urea Nitrogen (BUN) (Method: Calculated)	11.0	mg/dL	7.0-18.0
Urea-Serum (Method: Calculated)	23.6	mg/dL	12.8-42.8

Interpretation:

BUN stands for blood urea nitrogen. Urea nitrogen is what forms when protein breaks down. The BUN test is often done to check kidney function

- **Higher-than-normal level may be due to:**
 - Congestive heart failure
 - Excessive protein level in the gastrointestinal tract
 - Gastrointestinal bleeding
 - Hypovolemia (dehydration)
 - Kidney disease, including glomerulonephritis, pyelonephritis, and acute tubular necrosis
- **Lower-than-normal level may be due to:**
 - Liver failure
 - Low protein diet
 - Malnutrition

Creatinine (Method: Jaffes Kinetic)	0.98	mg/dL	0.70-1.30
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Interpretation:

- This test is done to see how well your kidneys are working. Creatinine is a chemical waste product of creatine. Creatine is a chemical made by the body and is used to supply energy mainly to muscles.
- **A higher than normal level may be due to:**
 - Renal diseases and insufficiency with decreased glomerular filtration, urinary tract obstruction, reduced renal blood flow including congestive heart failure, shock, and dehydration; rhabdomyolysis can cause elevated serum creatinine.
- **A lower than normal level may be due to:**
 - Small stature, debilitation, decreased muscle mass; some complex cases of severe hepatic disease can cause low serum creatinine levels. In advanced liver disease, low creatinine may result from decreased hepatic production of creatinine and inadequate dietary protein as well as reduced muscle mass.

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CLINICAL BIOCHEMISTRY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
Glycated Hemoglobin (HbA1c) <small>(Method: HPLC)</small>	5.1	%	Non Diabetic:< 5.7 Pre diabetic: 5.7-6.4 Diabetic:>= 6.5
Mean Plasma Glucose <small>(Method: Calculated)</small>	99.67	mg/dL	

Glycated hemoglobins (GHb), also called glycohemoglobins, are substances formed when glucose binds to hemoglobin, and occur in amounts proportional to the concentration of serum glucose. Since red blood cells survive an average of 120 days, the measurement of GHb provides an index of a person's average blood glucose concentration (glycemia) during the preceding 2-3 months. Normally, only 4% to 6% of hemoglobin is bound to glucose, while elevated glycohemoglobin levels are seen in diabetes and other hyperglycemic states Mean Plasma Glucose(MPG):This Is Mathematical Calculations Where Glycated Hb Can Be Correlated With Daily Mean Plasma Glucose Level

NOTE: The above Given Risk Level Interpretation is not age specific and is an information resource only and is not to be used or relied on for any diagnostic or treatment purposes and should not be used as a substitute for professional diagnosis and treatment. Kindly Correlate clinically.

INTERPRETATION

Method: Analyzer Fully automated HPLC platform.

Average Blood Glucose(eAG) (mg/dL)	Level of Control	Hemoglobin A1c (%)
421		14%
386		13%
350		12%
314		11%
279		10%
243		9%
208		8%
172	POOR	7%
136	GOOD	6%
101	EXCELLENT	5%

HbA1c values of 5.0- 6.5 percent indicate good control or an increased risk for developing diabetes mellitus. HbA1c values greater than 6.5 percent are diagnostic of diabetes mellitus. Diagnosis should be confirmed by repeating the HbA1c test.

NOTE: Hb F higher than 10 percent of total Hb may yield falsely low results. Conditions that shorten red cell survival, such as the presence of unstable hemoglobins like Hb SS, Hb CC, and Hb SC, or other causes of hemolytic anemia may yield falsely low results. Iron deficiency anemia may yield falsely high results.





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CLINICAL BIOCHEMISTRY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
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Uric Acid <small>(Method: Urinase)</small>	5.5	mg/dL	3.5-7.2
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Interpretation:

- Uric acid is a chemical created when the body breaks down substances called purines. Purines are normally produced in the body and are also found in some foods and drinks. Foods with high content of purines include liver, anchovies, mackerel, dried beans and peas, and beer. Most uric acid dissolves in blood and travels to the kidneys. From there, it passes out in urine. If your body produces too much uric acid or does not remove enough of it, you can get sick. A high level of uric acid in the blood is called hyperuricemia. This test checks to see how much uric acid you have in your blood. Investigation and monitoring of inflammatory arthritis pain, particularly in big toe (gout)
- Useful in the investigation of kidney stones
- Aid in diagnosis, treatment, and monitoring of renal failure/disease
- Monitor patients receiving cytotoxic drugs (high nucleic acid turnover)
- Monitor diseases with nucleic acid metabolism and turnover (eg, leukemia, lymphoma, polycythemia)

25 - Hydroxy Vitamin D <small>(Method: CLIA)</small>	9.00	ng/mL	<20.0-Deficiency 20.0-30.0-Insufficiency 30.0-100.0-Sufficiency >100.0-Potential Intoxication
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Interpretation:

- Vitamin D helps your body absorb calcium and maintain strong bones throughout your entire life. Your body produces vitamin D when the sun's UV rays contact your skin. Other good sources of the vitamin include fish, eggs, and fortified dairy products. It's also available as a dietary supplement.
 - Vitamin D must go through several processes in your body before your body can use it. The first transformation occurs in the liver. Here, your body converts vitamin D to a chemical known as 25-hydroxyvitamin D, also called calcidiol.
 - The 25-hydroxy vitamin D test is the best way to monitor vitamin D levels. The amount of 25-hydroxyvitamin D in your blood is a good indication of how much vitamin D your body has. The test can determine if your vitamin D levels are too high or too low.
 - The test is also known as the 25-OH vitamin D test and the calcidiol 25-hydroxycholecalciferol test. It can be an important indicator of osteoporosis (bone weakness) and rickets (bone malformation).
- Those who are at high risk of having low levels of vitamin D include:**
- people who don't get much exposure to the sun
 - older adults
 - people with obesity.
 - dietary deficiency
- Increased Levels:** Vitamin D Intoxication

Method : CLIA





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CLINICAL BIOCHEMISTRY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
Vitamin- B12 (cyanocobalamin) <small>(Method: CLIA)</small>	218	pg/mL	211-911

Interpretation:

This test is most often done when other blood tests suggest a condition called megaloblastic anemia. Pernicious anemia is a form of megaloblastic anemia caused by poor vitamin B12 absorption. This can occur when the stomach makes less of the substance the body needs to properly absorb vitamin B12.

Causes of vitamin B12 deficiency include: Diseases that cause malabsorption

- Lack of intrinsic factor, a protein that helps the intestine absorb vitamin B12
- Above normal heat production (for example, with hyperthyroidism)

An increased vitamin B12 level is uncommon in:

- Liver disease (such as cirrhosis or hepatitis)
- Myeloproliferative disorders (for example, polycythemia vera and chronic myelogenous leukemia)
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*** End Of Report ***





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Sample Tested In	: Serum		
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CLINICAL BIOCHEMISTRY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
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Lipid Profile

Cholesterol Total (Method: CHOD-POD)	201	mg/dL	< 200
Triglycerides-TGL (Method: GPO-POD)	105	mg/dL	< 150
Cholesterol-HDL (Method: Direct)	46	mg/dL	40-60
Cholesterol-LDL (Method: Calculated)	134	mg/dL	< 100
Cholesterol- VLDL (Method: Calculated)	21	mg/dL	7-35
Non HDL Cholesterol (Method: Calculated)	155	mg/dL	< 130
Cholesterol Total /HDL Ratio (Method: Calculated)	4.37	Ratio	0-4.0
LDL/HDL Ratio (Method: Calculated)	2.91	Ratio	0-3.5

The National Cholesterol Education program's third Adult Treatment Panel (ATPIII) has issued its recommendations on evaluating and treating lipid disorders for primary and secondary.

NCEP Recommendations	Cholesterol Total in (mg/dL)	Triglycerides in (mg/dL)	HDL Cholesterol (mg/dL)	LDL Cholesterol in (mg/dL)	Non HDL Cholesterol in (mg/dL)
Optimal	Adult: < 200 Children: < 170	< 150	40-59	Adult:<100 Children: <110	<130
Above Optimal	-----	-----		100-129	130 - 159
Borderline High	Adult: 200-239 Children:171-199	150-199		Adult: 130-159 Children: 111-129	160 - 189
High	Adult:>or=240 Children:>or=200	200-499	≥ 60	Adult:160-189 Children:>or=130	190 - 219
Very High	-----	>or=500		Adult: >or=190 -----	>=220

Note: LDL cholesterol cannot be calculated if triglyceride is >400 mg/dL (Friedewald's formula). Calculated values not provided for LDL and VLDL

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CLINICAL BIOCHEMISTRY

COMPREHENSIVE FULL BODY CHECKUP WITH VITAMIN D & B12

Test Name	Results	Units	Biological Reference Interval
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Liver Function Test (LFT)

Bilirubin(Total) (Method: Diazo)	0.3	mg/dL	0.1-1.2
Bilirubin (Direct) (Method: Diazo)	0.1	mg/dL	0.0 - 0.3
Bilirubin (Indirect) (Method: Calculated)	0.2	mg/dL	0.2-1.0
Aspartate Aminotransferase (AST/SGOT) (Method: IFCC UV Assay)	22	U/L	15-37
Alanine Aminotransferase (ALT/SGPT) (Method: IFCC with out (P-S-P))	23	U/L	0-55
Alkaline Phosphatase(ALP) (Method: Kinetic PNPP-AMP)	68	U/L	30-120
Gamma Glutamyl Transpeptidase (GGTP) (Method: IFCC)	15	U/L	15-85
Protein - Total (Method: Biuret)	7.2	g/dL	6.4-8.2
Albumin (Method: Bromocresol Green (BCG))	4.5	g/dL	3.4-5.0
Globulin (Method: Calculated)	2.7	g/dL	2.0-4.2
A:G Ratio (Method: Calculated)	1.67	Ratio	0.8-2.0
SGOT/SGPT Ratio (Method: Calculated)	0.96	Ratio	<1.0

Alanine Aminotransferase(ALT) is an enzyme found in liver and kidneys cells. ALT helps create energy for liver cells. Damaged liver cells release ALT into the bloodstream, which can elevate ALT levels in the blood.

Aspartate Aminotransferase (AST) is an enzyme in the liver and muscles that helps metabolizes amino acids. Similarly to ALT, elevated AST levels may be a sign of liver damage or liver disease.

Alkaline phosphate (ALP) is an enzyme present in the blood. ALP contributes to numerous vital bodily functions, such as supplying nutrients to the liver, promoting bone growth, and metabolizing fat in the intestines.

Gamma-glutamyl Transpeptidase (GGTP) is an enzyme that occurs primarily in the liver, but it is also present in the kidneys, pancreas, gallbladder, and spleen. Higher than normal concentrations of GGTP in the blood may indicate alcohol-related liver damage. Elevated GGTP levels can also increase the risk of developing certain types of cancer.

Bilirubin is a waste product that forms when the liver breaks down red blood cells. Bilirubin exits the body as bile in stool. High levels of bilirubin can cause jaundice - a condition in which the skin and whites of the eyes turn yellow- and may indicate liver damage.

Albumin is a protein that the liver produces. The liver releases albumin into the bloodstream, where it helps fight infections and transport vitamins, hormones, and enzymes throughout the body. Liver damage can cause abnormally low albumin levels.





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Test Name	Results	Units	Biological Reference Interval
Iron Profile-I			
Iron(Fe) (Method: FerroZine)	81	µg/dL	65-175
Total Iron Binding Capacity (TIBC) (Method: FerroZine)	415	µg/dL	250-450
Transferrin (Method: Calculated)	290.21	mg/dL	215-365
Iron Saturation((% Transferrin Saturation) (Method: Calculated)	19.52	%	20-50
Unsaturated Iron Binding Capacity (UIBC) (Method: FerroZine)	334	µg/dL	110 - 370

Interpretation:

- Serum transferrin (and TIBC) high, serum iron low, saturation low. Usual causes of depleted iron stores include blood loss, inadequate dietary iron. RBCs in moderately severe iron deficiency are hypochromic and microcytic. Stainable marrow iron is absent. Serum ferritin decrease is the earliest indicator of iron deficiency if inflammation is absent.
- **Anemia of chronic disease:** Serum transferrin (and TIBC) low to normal, serum iron low, saturation low or normal. Transferrin decreases with many inflammatory diseases. With chronic disease there is a block in movement to and utilization of iron by marrow. This leads to low serum iron and decreased erythropoiesis. Examples include acute and chronic infections, malignancy and renal failure.
- **Sideroblastic Anemia:** Serum transferrin (and TIBC) normal to low, serum iron normal to high, saturation high.
- **Hemolytic Anemia:** Serum transferrin (and TIBC) normal to low, serum iron high, saturation high.
- **Hemochromatosis:** Serum transferrin (and TIBC) slightly low, serum iron high, saturation very high.
- **Protein depletion:** Serum transferrin (and TIBC) may be low, serum iron normal or low (if patient also is iron deficient). This may occur as a result of malnutrition, liver disease, renal disease.
- **Liver disease:** Serum transferrin variable; with acute viral hepatitis, high along with serum iron and ferritin. With chronic liver disease (eg, cirrhosis), transferrin may be low. Patients who have cirrhosis and portacaval shunting have saturated TIBC/transferrin as well as high ferritin.

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Thyroid Profile-I(TFT)

T3 (Triiodothyronine) (Method: CLIA)	103.60	ng/dL	70-204
T4 (Thyroxine) (Method: CLIA)	6.9	µg/dL	3.2-12.6
TSH -Thyroid Stimulating Hormone (Method: CLIA)	6.85	µIU/mL	0.35-5.5

Pregnancy & Cord Blood

T3 (Triiodothyronine):	T4 (Thyroxine)	TSH (Thyroid Stimulating Hormone)
First Trimester : 81-190 ng/dL	15 to 40 weeks:9.1-14.0 µg/dL	First Trimester : 0.24-2.99 µIU/mL
Second&Third Trimester :100-260 ng/dL		Second Trimester: 0.46-2.95 µIU/mL
		Third Trimester : 0.43-2.78 µIU/mL
Cord Blood: 30-70 ng/dL	Cord Blood: 7.4-13.0 µg/dL	Cord Blood: : 2.3-13.2 µIU/mL

Interpretation:

- Thyroid gland is a butterfly-shaped endocrine gland that is normally located in the lower front of the neck. The thyroid's job is to make thyroid hormones, which are secreted into the blood and then carried to every tissue in the body. Thyroid hormones help the body use energy, stay warm and keep the brain, heart, muscles, and other organs working as they should.
- Thyroid produces two major hormones: triiodothyronine (T3) and thyroxine (T4). If thyroid gland doesn't produce enough of these hormones, you may experience symptoms such as weight gain, lack of energy, and depression. This condition is called hypothyroidism.
- Thyroid gland produces too many hormones, you may experience weight loss, high levels of anxiety, tremors, and a sense of being on a high. This is called hyperthyroidism.
- TSH interacts with specific cell receptors on the thyroid cell surface and exerts two main actions. The first action is to stimulate cell reproduction and hypertrophy. Secondly, TSH stimulates the thyroid gland to synthesize and secrete T3 and T4.
- The ability to quantitate circulating levels of TSH is important in evaluating thyroid function. It is especially useful in the differential diagnosis of primary (thyroid) from secondary (pituitary) and tertiary (hypothalamus) hypothyroidism. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels are low.

*** End Of Report ***

