

**REPORT**

Name	: Mrs. NAVANEETHA	Sample ID	: A0643785
Age/Gender	: 28 Years/Female	Reg. No	: 0312407080012
Referred by	: Dr. JAI KUMAR	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 08-Jul-2024 10:42 AM
Primary Sample	: Whole Blood	Received On	: 08-Jul-2024 12:40 PM
Sample Tested In	: Serum	Reported On	: 08-Jul-2024 02:52 PM
Client Address	: Kimtee colony , Gokul Nagar, Tarnaka	Report Status	: Final Report

**CLINICAL BIOCHEMISTRY**

Test Name	Results	Units	Ref. Range	Method
<b>TSH -Thyroid Stimulating Hormone</b>	3.72	µIU/mL	0.35-5.5	CLIA

**Pregnancy & Cord Blood**

TSH (Thyroid Stimulating Hormone (µIU/mL))	
First Trimester	: 0.24-2.99
Second Trimester	: 0.46-2.95
Third Trimester	: 0.43-2.78
Cord Blood	: 2.3-13.2

- TSH is synthesized and secreted by the anterior pituitary in response to a negative feedback mechanism involving concentrations of FT3 (free T3) and FT4 (free T4). Additionally, the hypothalamic tripeptide, thyrotropin-releasing hormone (TRH), directly stimulates TSH production.
- 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
- TRH stimulation differentiates secondary and tertiary hypothyroidism by observing the change in patient TSH levels. Typically, the TSH response to TRH stimulation is absent in cases of secondary hypothyroidism, and normal to exaggerated in tertiary hypothyroidism
- Historically, TRH stimulation has been used to confirm primary hyperthyroidism, indicated by elevated T3 and T4 levels and low or undetectable TSH levels. TSH assays with increased sensitivity and specificity provide a primary diagnostic tool to differentiate hyperthyroid from euthyroid patients.

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

Laboratory is NABL Accredited



*Dr. Vaishnavi*  
**DR. VAISHNAVI**  
**MD BIOCHEMISTRY**

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**CLINICAL BIOCHEMISTRY**

Test Name	Results	Units	Ref. Range	Method
<b>Liver Function Test (LFT)</b>				
Bilirubin(Total)	0.6	mg/dL	0.3-1.2	Diazo
Bilirubin (Direct)	0.1	mg/dL	0.0 - 0.2	Diazo
Bilirubin (Indirect)	0.5	mg/dL	0.2-1.0	Calculated
Aspartate Aminotransferase (AST/SGOT)	30	U/L	5-40	IFCC with out (P-5-P)
Alanine Aminotransferase (ALT/SGPT)	37	U/L	0-55	IFCC with out (P-5-P)
Alkaline Phosphatase(ALP)	115	U/L	30-120	Kinetic PNPP-AMP
Gamma Glutamyl Transpeptidase (GGTP)	25	U/L	5-55	IFCC
Protein - Total	6.6	g/dL	6.4-8.2	Biuret
Albumin	3.9	g/dL	3.4-5.0	Bromocresol Green (BCG)
Globulin	2.7	g/dL	2.0-4.2	Calculated
A:G Ratio	1.44	%	0.8-2.0	Calculated
SGOT/SGPT Ratio	0.81			

**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.

Correlate Clinically.

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



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