

<b>Name</b>	: ORSILA KERKETA	<b>Patient UID.</b>	: 2197588
<b>Age/Gender</b>	: 35 Yrs/Female	<b>Visit No.</b>	: 34972212270001
<b>Referred Client</b>	: LDPLW3229-ldpl-cP	<b>Collected on</b>	: 27-Dec-2022 10:22AM
<b>Referred By</b>	: NA	<b>Received on</b>	: 27-Dec-2022 11:00AM
<b>Doctor Name</b>	: Dr. ANIL PRASAD	<b>Reported on</b>	: 27-Dec-2022 12:48PM
<b>Sample Type</b>	: Serum - W544288		

**IMMUNOLOGY**

Test Name	Results	Unit	Bio. Ref. Interval
<b>THYROID STIMULATING HORMONE (TSH)</b>			
THYROID STIMULATING HORMONE (TSH)	1.071	μIU/ml	0.35-5.50

Methodology: ECLIA

**NOTE**-TSH levels are subject to circadian variation, reaching peak levels between 2-4 AM and min between 6-10 PM. The variation is the order of 50% hence time of the day has influence on the measures serum TSH concentration. Dose and time of drug intake also influence the test result. Transient increase in TSH levels or abnormal TSH levels can be seen in some non thyroidal conditions, simultaneous measurement of TSH with free T4 is useful in evaluating differential diagnosis.

**INTERPRETATION**-Ultra Sensitive 4th generation assay

1. Primary hyperthyroidism is accompanied by ↑ serum T3 & T4 values along with ↓ TSH level.
2. Low TSH, high FT4 and TSH receptor antibody (TRAb) +ve seen in patients with Graves disease
3. Low TSH, high FT4 and TSH receptor antibody (TRAb) -ve seen in patients with Toxic adenoma/Toxic Multinodular goiter
4. High TSH, Low FT4 and Thyroid microsomal antibody increased seen in patients with Hashimoto's thyroiditis
5. High TSH, Low FT4 and Thyroid microsomal antibody normal seen in patients with Iodine deficiency/Congenital T4 synthesis deficiency
6. Low TSH, Low FT4 and TRH stimulation test -Delayed response seen in patients with Tertiary hypothyroidism
7. Primary hypothyroidism is accompanied by ↓ serum T3 and T4 values & ↑ serum TSH levels
8. Normal T4 levels accompanied by ↑ T3 levels and low TSH are seen in patients with T3 Thyrotoxicosis
9. Normal or ↓ T3 & ↑ T4 levels indicate T4 Thyrotoxicosis (problem is conversion of T4 to T3)
10. Normal T3 & T4 along with ↓ TSH indicate mild / Subclinical Hyperthyroidism.
11. Normal T3 & ↓ T4 along with ↑ TSH is seen in Hypothyroidism.
12. Normal T3 & T4 levels with ↑ TSH indicate Mild / Subclinical Hypothyroidism.
13. Slightly ↑ T3 levels may be found in pregnancy and in estrogen therapy while ↓ levels may be encountered in severe illness, malnutrition, renal failure and during therapy with drugs like propranolol.
14. Although ↑ TSH levels are nearly always indicative of Primary Hypothyroidism, rarely they can result from TSH secreting pituitary tumours.

**DURING PREGNANCY - REFERENCE RANGE for TSH in uIU/mL (As per American Thyroid Association)**

1st Trimester : 0.10-2.50 uIU/mL

2nd Trimester : 0.20-3.00 uIU/mL

3rd Trimester : 0.30-3.00 uIU/mL

The production, circulation, and disintegration of thyroid hormones are altered throughout the stages of pregnancy.

**REMARK**-Assay results should be interpreted in context to the clinical condition and associated results of other investigations. Previous treatment with corticosteroid therapy may result in lower TSH levels while thyroid hormone levels are normal. Results are invalidated if the client has undergone a radionuclide scan within 7-14 days before the test. Abnormal thyroid test findings often found in critically ill patients should be repeated after the critical nature of the condition is resolved. TSH is an important marker for the diagnosis of thyroid dysfunction. Recent studies have shown that the TSH distribution progressively shifts to a higher concentration with age, and it is debatable whether this is due to a real change with age or an increasing proportion of unrecognized thyroid disease in the elderly.

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<b>Doctor Name</b>	: Dr. ANIL PRASAD	<b>Reported on</b>	: 27-Dec-2022 03:39PM
<b>Sample Type</b>	: Serum - W544288		

**IMMUNOLOGY**

Test Name	Results	Unit	Bio. Ref. Interval
Total IgE	390.00	IU/mL	2-214

Methodology: ECLIA

**Comments**

Immunoglobulin E (IgE) is the most important trigger molecule for allergic information. The level of IgE is low during the first year of life. Because IgE is a mediator of the allergic response, quantitative measurement of serum IgE, when integrated with other clinical indicators, can provide useful information for the differential clinical diagnosis of atopic and not-atopic disease. Patients with atopic disease, including allergic asthma, allergic rhinitis, and atopic dermatitis commonly have moderately elevated serum IgE levels. . Total serum IgE levels may also be elevated in the presence of some clinical conditions that are not related to allergy eg immunodeficiency states, auto immune disease, hodgkins disease, bronchopulmonary aspergillosis, IgE myeloma, and Sezary syndrome. . Patients with atopic diseases like Allergic asthma, Allergic rhinitis & Atopic dermatitis have moderately elevated IgE levels.

**Increased Levels** - Atopic/Non-atopic allergy, Hyper IgE syndrome, Parasitic infections, IgE Myeloma, Pulmonary Aspergillosis & Autoimmune diseases

**Uses**

- Evaluation of children with strong family history of allergies and early clinical signs of disease
- To confirm clinical expression of sensitivity to foods in patients with Anaphylactic sensitivity or with Asthma, Angioedema or Cutaneous disease
- To evaluate sensitivity to insect venom allergens particularly as an aid in defining venom specificity in those cases in which skin tests are equivocal
- To confirm the presence of IgE antibodies to certain occupational allergens

**Note:**

1. Normal levels of IgE do not rule out possibility of IgE dependent allergies as the diagnostic sensitivity of the test depends upon elapsed time between exposure to an allergen and testing, patient age and affected target organs.
2. No close correlation has been demonstrated between severity of allergic reaction and IgE levels.

**Reference ranges**

1. Clinical and Laboratory Standards Institute. Defining, establishing, and verifying reference intervals in the clinical laboratory: approved guideline. CLSI document C28–A3. Clinical and Laboratory Standards Institute, Wayne, Pa; 2008.2. Dati, F.R.K. Reference values for serum IgE in healthy non-atopic children and adults. Clin Chem. 1982; 28: 1556

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

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