

Thyroid peroxidase (TPO) antibodies

General information

Thyroid peroxidase (TPO), originally described as thyroid microsomal antigen is the immuno-active microsomal antigen.

Specimen transport: At room temperature

Repeat frequency: significant change of clinical symptoms

Special precautions: None

Laboratory information

Specimen type: 7ml clotted blood

Turnaround time: Median 2 days

Method: Fluoroenzyme Immunoassay

Interferences: False positives may occur if the patient is taking a high dose of biotin. Interference seen in patients receiving itraconazole. The deviation of anti-TPO caused by itraconazole is max +28% and an autoimmune thyroiditis may be incorrectly suspected.

Participation in EQA Scheme: NEQAS for General Autoimmune Serology

Clinical information

Indications for the test:

- To identify an autoimmune cause for primary hypothyroidism.
- To identify the risk of progression to overt hypothyroidism in patients with borderline thyroid function tests. (For individuals with TSH excess or mild thyroid failure, a positive TPO antibody indicates an approximate two-fold increase in risk of progression to overt hypothyroidism).
- Prior to treatment with medication that may precipitate hypothyroidism.
- In pregnant women as a predictor of potential intrapartum hypothyroidism. Factors affecting the test: Present in high titre in 95% of patients with Hashimoto's thyroiditis, some patients with Grave's disease and primary myxoedema. Anti-TPO are also seen in 5-15% of normals but at low titre.

Division of Laboratory Medicine

Biochemistry

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Reference Range: 0-34 IU/ml

ICE reference: Thyroid peroxidase Antibodies

(Last updated April 2022)