

## 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

### Immunology

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**Reference Range:** 0-34 IU/ml

**ICE reference:** Thyroid peroxidase Antibodies

**(Last updated September 2020)**