

Potential factors causing susceptibility to TSHR autoimmunity

External factors

- Infection
- Trauma
- Stress
- Iodine intake
- Irradiation

Internal factors

- Thyroid autoantibodies
- Sex steroids
- Pregnancy
- Fetal microchimerism

Increased genetic susceptibility

- HLA class II genes with an arginine at position 74
- CTLA4*
- CD40*
- Tg*
- Unknown genes on a variety of confirmed loci

Possible clinical indications for TSHR antibody assessment

Graves disease

- Diagnosis
- Assessment of disease activity
- Prediction of remission after antithyroid drug administration

Graves ophthalmopathy

- Detection of underlying autoimmunity
- Assessment of disease activity

Hypothyroidism

- Diagnosis of atrophic Hashimoto thyroiditis

Pregnancy and neonatal thyroid dysfunction^A

- Prediction of neonatal Graves disease
- Diagnosis of transient hyper- and hypothyroidism in the newborn

Toxic multinodular goiter

- Diagnosis of coexisting Graves disease

^AThe function of persistent TSHR antibodies in pregnancy should be determined using a bioassay.