TECHNICAL INFORMATION

THYROID PEROXIDASE (TPO) AUTOANTIBODY RIA KIT

RiaRSR™ TPOAb

Description: Radioimmunoassay (RIA) kit for the quantitative determination of autoantibodies to thyroid peroxidase (TPO) in serum.

Disease application: Autoimmune thyroid disease

Chronic autoimmune thyroiditis (Hashimoto’s disease)

Sample volume: 50 µL per tube (50 µL of a 1 in 20 dilution)

Total assay time: Approx. 3 hrs

Assay method:

- Calibs, controls, samples into tubes + ¹²⁵I TPO
- 1 hr incubation
- Add protein A
- 1 hr incubation
- Add diluent
- 30 min centrifuge
- Aspirate + count

Sensitivity: 98% n = 50 for either Hashimoto’s or Graves’ disease patients

Specificity:

- 99% n = 107 for healthy blood donors
- 94% n = 50 for healthy male blood donors
- 98% n = 50 for healthy female blood donors

Calibrator range: 0.3 - 100 units/mL [1 unit/mL (RiaRSR™ TPOAb) = 5 units/mL (NIBSC 66/387)]

Cut-off:

- Negative: ≤0.3 unit/mL
- Positive: >0.3 unit/mL

Lower detection limit: 0.03 units/mL (mean + 2 standard deviations in assay of 0 units/mL calibrator; n = 20)

Advantages:

The most sensitive and specific method for TPOAb detection currently

Features:

Robust and easy to use immunoprecipitation assay

Note:

For maintaining accuracy of assay results, RSR participates in the UK NEQAS (national external quality assessment service) scheme

Kit size: 100 tubes

Order code: TP/100

Literature:

Highly sensitive assays of autoantibodies to thyroglobulin and to thyroid peroxidase

Geographical distribution of subclinical autoimmune thyroid disease in Britain: A study using highly sensitive direct assays for autoantibodies to thyroglobulin and thyroid peroxidase

D Phillips et al, Thyroid 2002 12: 377-380
Is birthweight associated with thyroid autoimmunity? A study in twins

Thyroid autoantibodies