TECHNICAL INFORMATION

TSH RECEPTOR (TSHR) AUTOANTIBODY THIRD GENERATION ELISA KIT
ElisaRSR™ TRAb 3rd Generation

Description: Enzyme linked immunosorbent assay (ELISA) kit for the determination of autoantibodies to the TSH receptor (TSHR) in serum. Method based on inhibition of a human monoclonal TSHR autoantibody (M22) binding.

Disease application: Graves’ disease

Assay method:

Start buffer into wells + calibs, controls, samples
2 hrs incubation
Wash, add M22 biotin
25 min incubation
Wash, add SAPOD
20 min incubation
3 x wash, add substrate
30 min incubation
Stop reaction + read

Sample volume 75 µl per well

Total assay time approx 4 hours

Sensitivity: 95% n = 108 for Graves’ disease (treated and untreated patients)

Specificity: 100% n = 139 for healthy blood donors

Calibrator range: 0.4 - 30 units/L (units: NIBSC 90/672)

Cut-off: Negative: <0.4 units/L; Positive: ≥ 0.4 units/L

Lower detection limit: 0.08 units/L (mean - 2 standard deviations in assay of negative control; n = 50)

Advantages:
A highly sensitive non-isotopic assay suitable for use in routine clinical laboratories and easily automated. It offers the best disease specificity and sensitivity of all TSHR autoantibody assays currently available.

Kit size: 96 wells

Order code: TRE/96/3A

Literature:
B Rees Smith et al
A new assay for thyrotropin receptor autoantibodies
Thyroid 2004 14: 830-835

K Kamijo et al
Clinical evaluation of 3rd generation assay for thyrotropin receptor antibodies: The M22-biotin-based ELISA initiated by Smith
Endocrine Journal 2005 52: 252-529

A Theodoraki et al
Performance of a third-generation TSH-receptor antibody in a UK clinic
Clinical Endocrinology 2011 75: 127-133

Shaking during sample incubation:

Shaking the ELISA plate during sample incubation has little effect.

See also:
- ElisaRSR™ TRAb Fast™
- ElisaRSR™ TRAb 2nd Generation

This kit is intended for in-vitro use by professional persons only. The data quoted is for guidance only. Each laboratory should establish its own normal and pathological reference ranges for the assay and should include its own panel of control samples in the assay along with the controls provided as part of the kit.