RSR
TECHNICAL INFORMATION

FAST TSH RECEPTOR (TSHR) AUTOANTIBODY ELISA KIT

ElisaRSR™ TRAb Fast™

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. The specificity of the assay is comparable to ElisaRSR™ TRAb 3rd Generation, however, the incubation time is shorter and the number of pipetting steps is reduced in the ElisaRSR™ TRAb Fast™.

Disease application:
Graves’ disease

Test samples:
Sera can be used. Do not use lipaemic or haemolysed serum samples or plasma samples. No interference was observed with bilirubin at 20 mg/dL, haemoglobin at 500 mg/dL, intralipid up to 3,000 mg/dL, hCG up to 160mg/mL, human FSH up to 70 u/mL, human LH up to 10u/mL or human TSH up to 30mu/mL.

Assay volume:
75µL per well

Total assay time:
Approx. 2 hours

Assay method:

Start buffer into wells + calibs, controls, samples
1 hr incubation
Wash, add M22-peroxidase
25 min incubation
3 x wash, add substrate
25 min incubation
Stop reaction + read

Sensitivity:
85% n = 82 for Graves’ disease (treated and untreated patients)

Specificity:
100% n = 104 for healthy blood donors

Calibrator range:
1 - 40 units/L (units: NIBSC 90/672)

Cut-off:
Negative: <1 unit/L; Positive: ≥1 unit/L

Lower detection limit:
0.16 units/L (mean - 2 standard deviations in assay of negative control; n = 54)

Advantages:
A highly sensitive non-isotopic assay suitable for use in routine clinical laboratories and easily automated. It offers excellent disease specificity and sensitivity at minimum total assay time.

Kit size:
96 wells

Order code:
FTE/96

Literature:
J Sanders et al
Human monoclonal thyroid stimulating autoantibody
Lancet 2003 362: 126-128

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

Shaking during sample incubation:
Shaking the ELISA plate during sample incubation has little effect.

See also:
- ElisaRSR™ TRAb 3rd Generation
- 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.

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