IA-2 AUTOANTIBODY RIA KIT
RiaRSR™ IA-2 Ab

Description: Radioimmunoassay (RIA) kit for the quantitative determination of autoantibodies to IA-2 in serum.

Disease application: Type 1 Diabetes Mellitus (DM)

Assay method:

1. Calibs, controls, samples into tubes + ^125I IA-2
   18 hrs incubation
2. Add protein A
   1 hr incubation
3. Add buffer
   30 min centrifuge
4. Aspirate + count

Sample volume 20 µl per tube

Total assay time approx 20 hours

Sensitivity:

- 68% n = 50 for type 1 DM patients (DASP 2010)
- 66% n = 50 for type 1 DM patients (DASP 2009)

Specificity:

- 99% n = 90 for healthy blood donors (DASP 2010)
- 99% n = 94 for healthy blood donors (DASP 2009)

Calibrator range:

0.75 - 50 units/mL [1 unit/mL (RiaRSR™ IA-2 Ab) = 125 units/mL (NIBSC 97/550)]

Cut-off:

- Negative: ≤1.0 unit/mL; Positive: >1.0 unit/mL

Lower detection limit:

0.16 units/mL (mean + 2 standard deviations in assay of calibrator 0 units/mL; n = 20)

Advantages:

- Easy assay format suitable for use in routine clinical laboratories. Less demanding technically than islet cell antibody (ICA) detection by immunofluorescence

Features:

- Reliable and convenient method to measure specific IA-2 antibodies which are an important component of ICA in type 1 DM. IA-2 Ab levels can be expressed in NIBSC units by multiplying RiaRSR™ IA-2 Ab units by 125. IA-2 Ab measurements are useful for diagnosis and prediction of type 1 DM.

Note:

- For samples with low levels of IA-2 Ab, assay using RSR unlabelled recombinant IA-2 to be offered in order to check specificity.
- Sensitivity and specificity were assessed in Diabetes Antibody Standardization Program (DASP) 2009 and 2010

Kit size:

- 50 tubes, 100 tubes

Order code:

- IA2/50, IA2/100

Literature:

- M Masuda et al
  Autoantibodies to IA-2 in insulin-dependent diabetes mellitus. Measurements with a new immunoprecipitation assay

- P Bingley et al
  Diabetes antibody standardization program: First assay proficiency evaluation
  Diabetes 2003 52: 1128-1136

- R Ananieva-Jordanova et al
  Isolation and characterisation of a human monoclonal autoantibody to the islet cell autoantigen IA-2
  Journal of Autoimmunity 2005 24: 337-345

- S Chen et al
  Sensitive non-isotopic assays for autoantibodies to IA-2 and to a combination of both IA-2 and GAD65
  Clinica Chimica Acta 2005 357: 74-83

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.