# ELISA for Human IL-21

Product Code: 3540-1H-20

CONTENTS, development kit for 20 plates:

**Vial 1 (yellow top)** Monoclonal antibodies MT21.4/821, a combination of two different antibodies (1 ml), concentration: 0.5 mg/ml

Vial 2 (blue top) Biotinylated monoclonal antibody MT21.3m (500 µl), concentration: 0.5 mg/ml

Vial 3 (white top) Streptavidin-Horseradish Peroxidase (250 µl)

**Vial 4** Recombinant IL-21 standard (0.5 μg)

To ensure total recovery of stated quantity, vials have been overfilled.

### **STORAGE:**

Shipped at ambient temperature. On arrival box 1 should be stored refrigerated at 4-8°C and box 2 should be stored frozen at -20°C.

## General

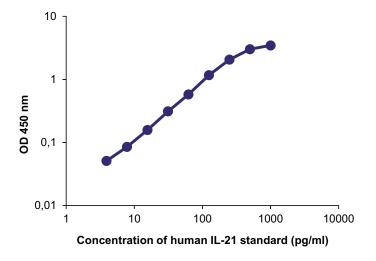
**Intended use:** For quantitative determination of native and recombinant human IL-21 in solution, e.g. cell culture supernatant.

**Serum/plasma samples:** Please note that cytokine determinations in serum/plasma require the use of ELISA diluent (product code: 3652-D2) for dilution of samples, standard and detection antibody. The diluent prevents false positive read-outs which may be caused by interference of heterophilic antibodies found in plasma and serum. The ELISA diluent has been validated using serum/plasma from normal healthy human blood donors. Please note that heterophilic antibody interference in samples from human subjects with various diseases or other conditions has not been assessed. Please contact Mabtech for further information.

**Reagents:** Antibodies are supplied in sterile-filtered (0.2  $\mu$ m) PBS with sodium azide (0.02%). Streptavidin-HRP is supplied in PBS with 1% BSA and 0.15% Kathon CG.

Standard range: 7-700 pg/ml

Standard calibration: No international standard exists for calibration.



## Guidelines for Human IL-21 ELISA

- **Day 1** 1. Coat a high protein binding ELISA plate with mAbs MT21.4/821, diluted to 2 μg/ ml in PBS, pH 7.4, by adding 100 μl/well. Incubate overnight at 4-8°C.
- **Day 2** 2. Wash twice with PBS (200 μl/well).
  - 3. Block plate by adding 200 µl/well of PBS with Tween 20 containing 0.1% BSA (incubation buffer). Incubate for 1 hour at room temperature.
  - 4. Wash five times with PBS containing 0.05% Tween.
  - 5. Prepare human IL-21 standard by reconstituting contents of vial 4 in 1 ml PBS with 1% BSA to a concentration of  $0.5 \mu g/ml$ . Leave at room temperature for 15 minutes and then vortex the tube. The stock solution should be used immediately or stored in aliquots at -20°C for future use. We recommend the aliquots not be refrozen after initial use. For the test, prepare dilutions of the stock using the standard range as a guideline.
  - 6. Add 100 μl/well of samples or standards diluted in incubation buffer or ELISA diluent for serum/plasma samples and incubate for 2 hours at room temperature
  - 7. Wash as in step 4.
  - 8. Add 100  $\mu$ /well of mAb MT21.3m-biotin at 1  $\mu$ g/ml in incubation buffer. Incubate for 1 hour at room temperature.
  - 9. Wash as in step 4.
  - 10. Add 100 μl/well of Streptavidin-HRP diluted 1:1000 in incubation buffer. Incubate for 1 hour at room temperature. **Please note that sodium azide used in buffers will inhibit HRP activity.**
  - 11. Wash as in step 4.
  - 12. Add 100 µl/well of appropriate substrate solution.
  - 13. Measure the optical density in an ELISA reader after suitable developing time. If required stop the reaction first.

### NOTE; for research use only.

MABTECH shall not be liable for the use or handling of the product or for consequential, special, indirect or incidental damages therefrom.

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2013-01-24



Developed and manufactured by MABTECH AB, Sweden, whose quality management system complies with the following standards:



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