## Datasheet & Protocol

## MABTECH

# ELISA Flex: Human IL-31 (ALP)

3530-1A-6 | 3530-1A-20

ELISA Flex kit for quantitative determination of native and recombinant human IL-31 in solution, e.g. cell supernatant.

The kit includes	<b>3530-1A-6</b> for 6 plates	<b>3530-1A-20</b> for 20 plates
Capture mAbs: MT31/88 (0.5 mg/ml)	300 μl	1000 μl
Detection mAb: MT158, biotin (0.5 mg/ml)	50 µl	150 µl
Streptavidin-ALP	80 µl	250 µl
Recombinant human IL-31 ELISA standard	1 vial	1 vial
Standard reconstitution buffer A5	1 ml	1 ml

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

#### Shipping and storage

Shipped at ambient temperature. All reagents should be stored at 4-8 °C upon receipt, except the standard which should be stored at -20 °C. Antibodies are supplied in sterile-filtered PBS with sodium azide (0.02%). Streptavidin-ALP is supplied in 0.1 M Tris buffer with 0.002% Kathon CG. The expiry date indicates how long unopened products, stored according to instructions, are recommended for use.

### **General and Preparations**

#### Specificity

The kit contains a matched pair of monoclonal antibodies (mAbs) specific for native and recombinant human IL-31.

Standard range 3-300 pg/ml

Calibration

No international standard exists for calibration.

#### Analysis of serum and plasma samples

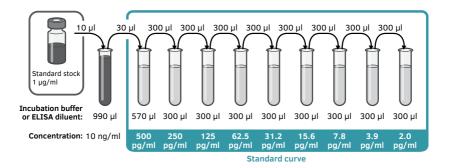
Analysis of serum/plasma requires the use of ELISA diluent (product code: 3652-D2). The ELISA diluent blocks heterophilic antibodies, commonly found in serum/plasma, from cross-linking the assay antibodies, thereby preventing false positive read-outs. The ELISA diluent should be used for dilution of standard, samples, and detection antibody.

#### **Reconstitution of ELISA standard**

Reconstitute the ELISA standard to a stock solution of 1  $\mu$ g/ml by adding 1 ml of the standard reconstitution buffer. Allow the standard to dissolve for 5 minutes and mix thoroughly. The standard should be kept in aliquots at -20 °C. Avoid repeated freeze-thaw cycles.

#### Preparation of standard curve

Prepare within 30 minutes of use. Volumes are sufficient for duplicates.



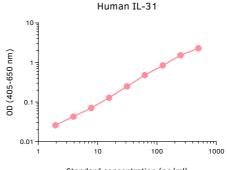
### Protocol

Day 1

**1.** Add 100 μl/well of capture mAb MT31/88 diluted to 2 μg/ml in PBS, pH 7.4. Use high protein binding ELISA plates. Incubate overnight at 4-8 °C.

Day 2

- **2.** Empty the plate and add 200  $\mu$ /well of PBS with 0.05% Tween 20 and 0.1% BSA (incubation buffer) to block the plate. Incubate for 1 hour at room temperature.
- 3. Wash the plate 5 times with PBS containing 0.05% Tween 20 (300 µl/well).
- **4.** Add 100 μl/well of samples or standards diluted in incubation buffer or ELISA diluent. Include assay background control, i.e. wells without standard. Incubate for 2 hours at room temperature.
- 5. Wash as above.
- **6.** Add 100  $\mu$ /well of detection mAb MT158-biotin diluted to 0.25  $\mu$ g/ml in incubation buffer or ELISA diluent. Incubate for 1 hour at room temperature.
- 7. Wash as above.
- **8.** Add 100 μl/well of Streptavidin-ALP diluted 1:1000 in incubation buffer. Incubate for 1 hour at room temperature.
- 9. Wash as above.
- **10.** Add 100 μl/well of pNPP substrate (product code: 3652-P10) and incubate at room temperature protected from direct light for approximately 60 minutes.
- **11.** Measure the optical density in an ELISA reader at 405 nm. Preferably use a reader capable of subtracting a reference wavelength of between 570 and 650 nm. Representative standard curve shown below.



Standard concentration (pg/ml)



Developed and manufactured by MABTECH AB, Sweden, whose quality management system complies with the standards ISO 9001:2015 & ISO 13485:2016.



#### The products are for research use only.

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