

DATA SHEET

Versions: 01

Revision date: 25/11/2023

1. Identification

Product name: ELISA kits for Mouse of Mouse IL-4

Reactions: 96,48 Rxns

Cat. No.: PRA-MIL-4-96, PRA-MIL-4-48

2. Description

IL-4 is a cytokine of Th2 lymphocytes. This cytokine is mainly produced by helper T lymphocytes type 2, mast cells and some macrophages. This cytokine also has inflammatory properties so that its role in allergic diseases as well as in the response against parasitic infections has been well proven. On the other hand, this cytokine plays a big role in the development of humoral immunity-mediated diseases. Therefore, this cytokine as a Th2 indicator is widely used in laboratory studies to investigate the condition of a disease or the inflammatory or anti-inflammatory effects of a drug. This kit is designed and produced using monoclonal antibodies against mouse IL-4, so it is not used in measuring similar animal cases.

3. Kit Contents

Component	Cat. no	Quantity
Human anti-IL-4 pre-coated plate	PRA-CIL-4 P	96 vials
Standards	PRA-IL-4 N1-4	200 µl
HRP-Avidin buffer	PRA-HA	5 ml
HRP	PRA-HAA	540 µl
Substrate	PRA-SU	5 ml
Stopping	PRA-ST	7 ml
10X washing buffer	PRA-WB	40 ml
Detection Ab	PRA-IL-4 D	5 ml



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4. Storage specifications

All components of the ELISA kits can be stored at 4°C temperature.

5. Applications

Detection of both inflammatory and anti-inflammatory factors through ELISA.

6. Assay Procedure

How to Prepare Solutions:

1. Washing Buffer:

- To prepare the washing solution, dilute it with distilled water at a 1:10 ratio.

2. HRP-Avidin:

- Spin the HRP vial using a microfuge device, then add all its contents to the HRP-Avidin buffer vial.

- For quantities less than 48 assays, mix 416 μL of HRP-Avidin, 41 μL of HRP per 8-well row.

Working with the Kit:

1. Plate Preparation:

- Remove the plate from its package and let it reach room temperature in a dry environment.

- Add 50 μL of standards #4 to #1 in the first to fourth wells.

2. Sample Incubation:

- Add 50 microliters of the desired sample to the remaining wells.

- Incubate for 60 minutes on a 200 RPM shaker at room temperature.

3. Plate Washing:

- After proper incubation, wash the plates three times using the washing solution (after adding the washing solution, incubate the plates for approximately 1 minute at room temperature and then drain).

4. Conjugated Antibody Addition:

- Add 50 microliters of conjugated antibody (Detection ab) to all wells.



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- Incubate for 60 minutes on a 200 RPM shaker at room temperature.
- 5. Plate Washing (Again):
 - After proper incubation, wash the plates three times using washing solution.
- 6. HRP-Avidin Addition:
 - Add 50 microliters of HRP-Avidin solution to all wells.
 - Incubate for 30 minutes on a shaker (at least at RPM 200).
- 7. Plate Washing (Again):
 - After proper incubation, wash the plates five times using washing solution.
- 8. Substrate Addition:
 - Add 50 microliters of substrate to all wells and incubate for 15 minutes. Note that 15 minutes is enough for incubation, but if the amount of color produced is low, the time can be increased to 20 minutes.
- 9. Stopping Reaction:
 - Add 25 microliters of the stopping solution to all the wells.
- 10. Measurement:
 - Measure the absorbance of the samples in an ELISA reader at a wavelength of 450 nm.

7. Safety

- The solutions used in the kit have oxidizing and acidic properties.
- Avoid direct contact with skin and eyes.
- In case of contact with the mentioned tissues, wash with plenty of water and go to the nearest medical center.

8. Quality Certifications

9. Further information

- This product is developed, designed, and sold exclusively only for research purposes use.
- The product was not tested for use in diagnostics or for drug development.
- It is not suitable for administration to humans or animals.



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10. Other Kits

Other ELISA kits:

Human:

IL-1 β , IL-2, IL-4, IL-6, IL-8, IL-10, IL-12, IL-13, IL-18, IL-23, IL-29, IL-17A,
TGF- β , VEGF, TNF- α , IFN- γ , CCL2 (MCP-1), CCL3 (MIP-1-alpha), CXCL10
(IP-10), CXCL12 (SDF-1), CCL21

Mouse:

IL-1 β , IL-2, IL-4, IL-6, IL-10, IL-13, IL-33, IL-18, TNF- α , TGF- β , CCL3, IFN- γ ,
Total IgG, Total IgE

Rat:

TNF- α , IL-1 β , IL-6, IL-10, IL-17A

NOTE

All products have been manufactured by Karmania Pars Gene Company in the Iran.

