

Versions: 01

Revision date: 25/11/2023

Pioneer Research Anahita Company No.157 Danesh street Technology Park Pardis Tehran/Iran

# 1. Identification

Product name: ELISA kits for Mouse of Mouse IL-10

Reactions: 96,48 Rxns

Cat. No.: PRA-MIL-10-96, PRA-MIL-10-48

## 2. Description

IL-10 is an anti-inflammatory cytokine produced by a large number of immune cells, including regulatory T lymphocytes and macrophages. This cytokine has many anti-inflammatory properties and has a receptor on a certain number of immune cells. Hence, it is able to regulate and suppress the response of a wide range of immune system activities. IL-10 plays an important role in creating homeostasis following microbial infections as well as preventing the development of autoimmune diseases. Therefore, this cytokine as an anti-inflammatory indicator is widely used in laboratory studies to investigate the condition of a disease or the inflammatory or anti-inflammatory effects of a drug. The current kit is designed and produced using mouse monoclonal anti-IL-10 antibodies, so it is not applicable for measuring similar animal and human cases

## 3. Kit Contents

Component	Cat. no	Quantity
Human anti-IL-10 pre-coated	PRA-CIL-10 P	96 vials
plate		
Standards	PRA-IL-10 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-10 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 this solution with distilled water 10 times.
- 2. HRP-Avidin:
- Spin the HRP vial using a microfuge device, then add all its contents to the HRP-Avidin buffer vial.
- If quantities less than 48 assays are used, mix 416  $\mu L$  of HRP-Avidin, 41  $\mu L$  of HRP per 8-well row.

Working with the Kit:

- 1. Plate Preparation:
- Remove the plate from the desired package and bring it to room temperature in a dry environment.
  - Add 50 µL of standards #4 to #1 to the first to fourth wells.
- 2. Sample Incubation:
  - Add 50  $\mu L$  of the desired sample to the rest of the 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:









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- Add 50 µL of conjugated antibody (Detection ab) to all wells.
- 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 µL 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  $\mu$ L 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 µL 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 $\beta$ , IL-2, IL-4, IL-6, IL-8, IL-10, IL-12, IL-13, IL-18, IL-23, IL-29, IL-17A, TGF- $\beta$ , VEGF, TNF- $\alpha$ , IFN- $\gamma$ , CCL2 (MCP-1), CCL3 (MIP-1-alpha), CXCL10 (IP-10), CXCL12 (SDF-1), CCL21

### Mouse:

IL-1β, 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-1β, IL-6, IL-10, IL-17A

### **NOTE**

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

