

DATA SHEET

Versions: 01

Revision date: 25/11/2023

1. Identification

Product name: ELISA kits for Rat IL-17A

Reactions: 96,48 rxns

Cat. No.: PRA-RIL-17 -96, PRA- RIL-17-48

2. Description

Interleukin-17A (IL-17A), a potent inflammatory cytokine, is primarily produced by type 17 (Th17) helper T lymphocytes. Renowned for its multifaceted inflammatory properties, IL-17A exerts its influence through receptors on specific immune cells, allowing it to regulate and induce responses in the immune system. IL-17A stands out as a key mediator of inflammatory responses, contributing to the regulation and activation of immune system cells. IL-17A plays a crucial role in fostering the immune system's response against bacterial and fungal infections, showcasing its importance in host defense. As a significant factor in the development of autoimmune diseases, IL-17A's involvement underscores its role in pathological processes. Widely utilized as an inflammatory indicator, IL-17A finds application in laboratory studies to investigate the status of autoimmune diseases. Its measurement provides insights into the inflammatory aspects of various pathological conditions. The present kit, meticulously designed and produced, utilizes anti-IL-17A rat monoclonal antibodies. It is important to note that this kit is specifically intended for measuring IL-17A levels and may not be suitable for similar animal cases. The serum level of IL-17A varies among different communities, with reported levels ranging between 5 and 30 pg/ml. This comprehensive overview underscores the significant role of IL-17A in inflammation, immune response, and autoimmune diseases, making it a valuable tool in experimental research and clinical investigations.



DATA SHEET

Versions: 01

Revision date: 25/11/2023

3. Kit Contents

Component	Cat. no	Quantity
Human anti- RIL17 pre-coated plate	PRA- RIL17P	96 vials
Standards	PRA- RIL17N1-4	200 μ l
HRP-Avidin buffer	PRA-HA	5 ml
HRP	PRA-HAA	540 μ l
Substrate	PRA-SU	5 ml
Stopping	PRA-ST	7 ml
10X washing buffer	PRA-WB	40 ml
Detection Ab	PRA- RIL17D	5 ml

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 μ L of HRP-Avidin, 41 μ L of HRP per 8-well row.



DATA SHEET

Versions: 01

Revision date: 25/11/2023

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 μ L of standards #4 to #1 in the first to fourth wells.

2. Sample Incubation:

- Add 50 μ l 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 μ l 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 μ l 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 μ 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 μ l 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.



DATA SHEET

Versions: 01

Revision date: 25/11/2023

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.

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.

