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| 1. Identification |

Product name: ELISA kits for measurement of human TGF-β

Reactions: 48/98 rxns

Cat. No.: PRA-HTGFβ-48/PRA-HTGFβ-96

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| 2. Description |

TGF-β 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. Despite its anti-inflammatory properties, this cytokine plays an important role in the growth and maturation of Th17 lymphocytes. Therefore, this cytokine together with IL-2 and IL-6 cytokines can also play an inflammatory role. TGF-β has an important role in creating homeostasis following microbial infections and also preventing the development of autoimmune diseases. Therefore, this cytokine as a mainly 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 and human anti-TGF-β monoclonal antibodies, so it is not used in the measurement of similar animal cases.

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| 3. Kit Contents |

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| Component | **Cat. no** | Quantity |
| Human anti-TGF-β pre-coated plate  | PRA-TGFP | 96,48 vials |
| Standards | PRA- TGFSN1-4 | 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-TGFD | 5 ml |

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| 4. Storage specifications |

All Elisa kits components can be stored at 4oC temperature.

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| 5. Applications |

Detection of inflammatory and anti-inflammatory factors.

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| 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:

 - To prepare this solution, 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 µl of HRP-Avidin and 41 µl of HRP per 8-well row.

How to Work with the Kit to Measure TGF-β:

1. Remove the plate from the desired package and bring it to room temperature in a dry environment.

2. Add 50 µl of standards 1 to 4 to the first to fourth wells.

3. Add 50 µl of the desired sample to the rest of the wells and incubate for 60 minutes on a 200 RPM shaker at room temperature.

4. After proper incubation, wash the plates 3 times using the washing solution (after adding the washing solution, incubate the plates for approximately 1 minute at room temperature and then drain).

5. Add 50 µl of conjugated antibody (Detection ab) to all wells and incubate for 60 minutes on a 200 RPM shaker at room temperature.

6. After proper incubation, wash the plates 3 times using washing solution.

7. Add 50 µl of HRP-Avidin solution to all wells and incubate for 30 minutes on a shaker (at least at RPM 200).

8. After proper incubation, wash the plates 5 times using washing solution.

9. Add 50 µl 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.

10. Add 25 µl of the stopping solution to all the wells and measure the absorbance of the samples in an ELISA reader at a wavelength of 450 nm.

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| 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.

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| 8. Quality Certifications |

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| 9. Further information |

This product is developed, designed, and sold exclusively for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

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| 10. Other Kits |

Other ELISA kits:

Human:

IL-1β, 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-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

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| NOTE |

All products have been produced by Karmania Pars Gene company in Iran.