Datasheet for ABIN1112651

IL-5 ELISA Kit

Go to Product page

Overview

Quantity:	96 tests
Target:	IL-5 (IL5)
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	For quantitative detection of IL-5 in human serum, body fluids, tissue lysate or cell culture supernate.
Sample Type:	Cell Culture Supernatant, Serum, Tissue Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 2 pg/mL
Components:	1. One 96-well plate pre-coated with anti-Human IL-5 antibody 2. Lyophilized Human IL-5 standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-Human IL-5 antibody (Concentrated): 130 µl.
Material not included:	1. 37 °C incubator 2. Microplate reader (wavelength: 450nm) 3. Precise pipette and disposable pipette tips 4. Automated plate washer 5. ELISA shaker 6. 1.5ml of Eppendorf tubes 7. Plate cover 8. Absorbent filter papers 9. Plastic or glass container with volume of above 1L

Target Details

Target:	IL-5 (IL5)
Alternative Name:	IL-5 (IL5 Products)
Background:	Interleukin 5 (IL-5) is an interleukin produced by T helper-2 cells and mast cells. It is a 115-amino acid-long TH2 cytokine that is part of the hematopoietic family. It is expressed by eosinophils and has been observed in the mast cells of asthmatic airways by immunohistochemistry. IL-5 expression is regulated by several transcription factors including GATA3. IL-5 is a key mediator in eosinophil activation. It has long been associated with the cause of several allergic diseases including allergic rhinitis and asthma, where in a large increase in the number of circulating, airway tissue, and induced sputum eosinophils have been observed. Given the high concordance of eosinophils and, in particular, allergic asthma pathology, it has been widely speculated that eosinophils have an important role in the pathology of this disease.
Pathways:	JAK-STAT Signaling, Positive Regulation of Peptide Hormone Secretion, Production of Molecular Mediator of Immune Response, Feeding Behaviour

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-IL-5 polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-IL-5 polyclonal antibody was used as detection antibodies. The standards test samples and biotin conjugated detection antibody were added - the wells subsequently and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used - visualize HRP enzymatic reaction. TMB was catalyzed by HRP - produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional - the IL-5 amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of IL-5 can be calculated.
Plate:	Pre-coated
Reagent Preparation:	1. Before the experiment, centrifuge each kit component for several minutes to bring down all reagents to the bottom of tubes. 2. It is recommend to measure each standard and sample in duplicate. 3. Do NOT let the plate completely dry at any time! Since the dry condition can inactivate the biological material on the plate. 4. Do not reuse pipette tips and tubes to avoid cross contamination. 5. Do not use the expired components and the components from different batches. 6. To avoid the marginal effect of plate incubation for temperature differences (the

Application Details

	marginal wells always get stronger reaction), it is recommend to equilibrate the ABC working solution and TMB substrate for at least 30 min at room temperature (37°C) before adding to wells.The TMB substrate (Kit Component 8) is colorless and transparent before use, if not, please contact us for replacement.
Sample Preparation:	Preparation of sample and reagents 1. Sample Isolate the test samples soon after collecting, then, analyze immediately (within 2 hours). Or aliquot and store at -20 °C for long term. Avoid multiple freeze-thaw cycles. Body fluids, tissue lysate or cell culture supernate: Centrifuge to remove precipitate, analyze immediately or aliquot and store at -20 °C. Serum: Coagulate the serum at room temperature (about 4 hours) or coat at 4°C overnight. Centrifuge at approximately 2000 × g for 20 min. Analyze the serum immediately or aliquot and store at -20 °C . Note: 1. Coagulate blood samples completely, then, centrifuge, and avoid hemolysis and particle. 2. NaN3 can not be used as test sample preservative, since it is the inhibitor for HRP. 3. The sample with hyperlipoidemia and haemolyticus is not suitable for this kit.
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide, Thimerosal (Merthiolate)