Datasheet for ABIN1112749

MIF ELISA Kit

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Overview

Quantity:	96 tests
Target:	MIF
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 20 pg/mL
Components:	1. One 96-well plate pre-coated with anti-Human MIF antibody 2. Lyophilized Human MIF standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-human MIF 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:	MIF

Target Details

Alternative Name:	MIF (MIF Products)
Background:	Macrophage migration inhibitory factor (MIF or MMIF) also known as glycosylation-inhibiting factor (GIF), L-dopachrome isomerase, or phenylpyruvate tautomerase is a protein that in humans is encoded by the MIF gene. Macrophage migration inhibitory factor assembles into a trimer composed of three identical subunits. Each of these monomers contain two antiparallel alpha helices and a four-stranded beta sheet. The monomers surround a central channel with 3-fold rotational symmetry. MIF plays a role in the regulation of macrophage function in host defense through the suppression of anti-inflammatory effects of glucocorticoids. It is an inflammatory mediator associated with rheumatoid arthritis (RA) severity. Additionally, evidence suggests that there is a correlation between MIF production and metastatic potential in colorectal cancer.
Pathways:	Regulation of Systemic Arterial Blood Pressure by Hormones, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Regulation of Carbohydrate Metabolic Process, Feeding Behaviour, Smooth Muscle Cell Migration, Negative Regulation of intrinsic apoptotic Signaling

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-MIF polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-MIF 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 MIF amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of MIF 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. Tissue lysate, body fluids and cell culture supernatants: Centrifuge to remove precipitate, analyze immediately or aliquot and store at -20 °C . Serum: Coagulate the serum at room temperature (about 4 hours). Centrifuge at approximately 1000 × g for 15 min. Analyze the serum immediately or aliquot and store at -20 °C . Plasma: Collect plasma with heparin as the anticoagulant. Centrifuge for 15 min at 1000 x g within 30 min of collection. Analyze immediately or aliquot and store frozen at -20 °C. Citrate and EDTA can not be used as anticoagulant here. 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.
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide, Thimerosal (Merthiolate)