Datasheet for ABIN411399

MIF ELISA Kit

1 Image | 1 Publication

Go to Product page

Overview

Quantity:	96 tests
Target:	MIF
Binding Specificity:	AA 2-115
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human MIF
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Milk
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: P2-A115
Specificity:	Expression system for standard: E.coli Immunogen sequence: P2-A115
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<20pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	MIF
Alternative Name:	MIF (MIF Products)
Background:	Background: Macrophage migration inhibitory factor(MIF) is a protein which in humans is encoded by the MIF gene.1, 2 This gene is located to human chromosome 22q11.2.3 It is remarkably small, it has 3 exons separated by introns of only 189 and 95 bp, and covers less than 1 kb.4 This gene encodes a lymphokine that may be involved in cell-mediated immunity, immunoregulation, and inflammation.5 MIF plays a role in the regulation of macrophage function in host defense through the suppression of anti-inflammatory effects of glucocorticoids. This lymphokine and the JAB1 protein might form a complex in the cytosol near the peripheral plasma membrane, which may possibly indicate a role in integrin signaling pathways. MIF also plays a central role in the toxic response to endotoxemia and possibly septic shock.Macrophage migration inhibitory factor has been reported to interact with COP9 constitutive photomorphogenic homolog subunit 5, CD74, BNIPL, and CXCR4. Synonyms: Macrophage migration inhibitory factor ,MIF , Full Gene Name: macrophage migration inhibitory factor (glycosylation-inhibiting factor)
Gene ID:	4282
UniProt:	I4AY87
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

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Plate:	Pre-coated
Protocol:	human MIF ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for MIF has been precoated onto 96-well plates. Standards(E.coli, P2-A115) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for MIF is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human MIF amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human MIF standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum, plasma(heparin, EDTA) or human milk to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human MIF standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 1442, Standard deviation: 90.85, CV(%): 6.3 • Sample 2: n=16, Mean(pg/ml): 3826, Standard deviation: 206.6, CV(%): 5.4 • Sample 3: n=16, Mean(pg/ml): 6427, Standard deviation: 315, CV(%): 4.9, • Sample 1: n=24, Mean(pg/ml): 1625, Standard deviation: 121.9, CV(%): 7.5 • Sample 2: n=24, Mean(pg/ml): 4177, Standard deviation: 254.8, CV(%): 6.1 • Sample 3: n=24, Mean(pg/ml): 6782, Standard deviation: 393.4, CV(%): 5.8
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

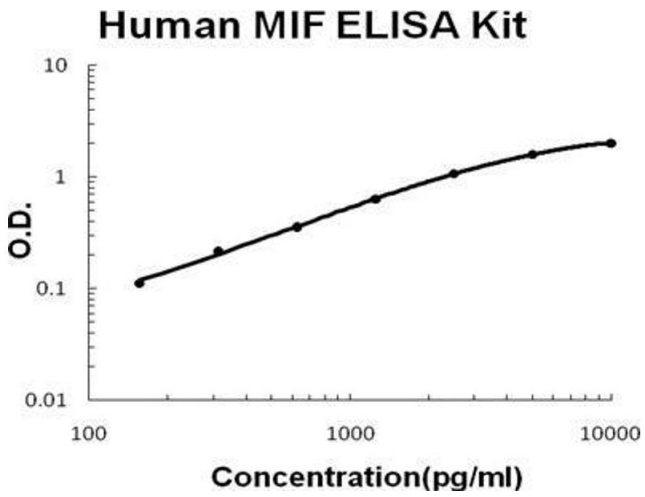
Publications

Product cited in:	Agnes, Zekarias, Shao, Anderson, Gershwin, Corbeil: "Bovine respiratory syncytial virus and

Publications

Histophilus somni interaction at the alveolar barrier." in: **Infection and immunity**, Vol. 81, Issue 7 , pp. 2592-7, (2013) (PubMed).

Images



ELISA

Image 1. Human MIF PicoKine ELISA Kit standard curve