Datasheet for ABIN411321

M-CSF/CSF1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	M-CSF/CSF1 (CSF1)
Binding Specificity:	AA 33-190
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human M-CSF
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Tissue Homogenate, Serum, Plasma (heparin), Plasma (EDTA), Saliva, Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: E33-S190
Specificity:	Expression system for standard: E.coli Immunogen sequence: E33-S190

Product Details

Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/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

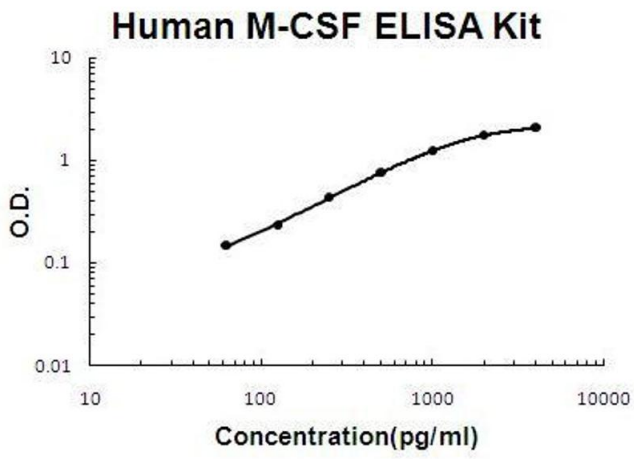
Target:	M-CSF/CSF1 (CSF1)
Alternative Name:	CSF1 (CSF1 Products)
Background:	Protein Function: Cytokine that plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. Promotes the release of proinflammatory chemokines, and thereby plays an important role in innate immunity and in inflammatory processes. Plays an important role in the regulation of osteoclast proliferation and differentiation, the regulation of bone resorption, and is required for normal bone development. Required for normal male and female fertility. Promotes reorganization of the actin cytoskeleton, regulates formation of membrane ruffles, cell adhesion and cell migration. Plays a role in lipoprotein clearance. . Background: M-CSF, also called CSF1, has a role in development of the placenta. Uterine CSF1 concentration is regulated by a synergistic action of estradiol and progesterone. CSF1 is produced by uterine glandular epithelial cells. It had been found that FMS, the CSF1 receptor, is expressed in placenta and choriocarcinoma cell lines1. The CSF1 gene is mapped to 1p21-p13 and contains 10 exons and 9 introns spanning 20 kb2. And there are 2 forms of CSF1, with 224 and 522 amino acids, resulting from alternative splicing3. Synonyms: Macrophage colony-stimulating factor 1,CSF-1,M-CSF,MCSF,Lanimostim,Processed macrophage colony-stimulating factor 1,CSF1, Full Gene Name: Macrophage colony-stimulating factor 1 Cellular Localisation: Cell membrane, Single-pass type I membrane protein.
Gene ID:	1435
UniProt:	P09603
Pathways:	RTK 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.
Plate:	Pre-coated
Protocol:	human M-CSF ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for M-CSF has been precoated onto 96-well plates. Standards(E.coli, E33-S190) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for M-CSF 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 M-CSF amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human M-CSF 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, tissue lysates, serum, plasma (heparin or EDTA), saliva or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human M-CSF standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 546, Standard deviation: 36.6, CV(%): 6.7 • Sample 2: n=16, Mean(pg/ml): 1011, Standard deviation: 44.5, CV(%): 4.4 • Sample 3: n=16, Mean(pg/ml): 2456, Standard deviation: 125.3, CV(%): 5.1, • Sample 1: n=24, Mean(pg/ml): 623, Standard deviation: 43.61, CV(%): 7 • Sample 2: n=24, Mean(pg/ml): 1528, Standard deviation: 85.57, CV(%): 5.6 • Sample 3: n=24, Mean(pg/ml): 2629, Standard deviation: 152.5, 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



ELISA

Image 1. Human M-CSF PicoKine ELISA Kit standard curve