Datasheet for ABIN1112744

M-CSF/CSF1 ELISA Kit

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Overview

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

Product Details

Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 10 pg/mL
Components:	1. One 96-well plate pre-coated with anti-Human M-CSF antibody 2. Lyophilized Human M-CSF standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-Human M-CSF 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:	M-CSF/CSF1 (CSF1)

Target Details

Alternative Name:	M-CSF (CSF1 Products)
Background:	Macrophage colony-stimulating factor, or M-CSF, is a secreted cytokine which influences hematopoietic stem cells to differentiate into macrophages or other related cell types. Ladner et al. (1987) showed that there are 2 forms of M-CSF, with 224 and 522 amino acids, resulting from alternative splicing. It is a hematopoietic growth factor that is involved in the proliferation, differentiation, and survival of monocytes, macrophages, and bone marrow progenitor cells. It released by osteoblasts (as a result of endocrine stimulation by parathyroid hormone) exerts paracrine effects on osteoclasts. M-CSF binds to receptors on osteoclasts inducing differentiation, and ultimately leading to increased plasma calcium levels—through the resorption (breakdown) of bone. More recently, it was discovered that CSF-1 and its receptor CSF1R are implicated in the mammary gland during normal development and neoplastic growth.
Pathways:	RTK Signaling

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-M-CSF polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-M-CSF 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 M-CSF amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of M-CSF 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 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

Application Details

	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 lysates 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 2000 × g for 15 min. Analyze the serum immediately or aliquot and store at -20 °C . Plasma: Collect plasma with citrate, heparin or EDTA as the anticoagulant. Centrifuge for 15 min at 2000 x g within 30 min of collection. Analyze immediately or aliquot and store frozen at -20 °C. Note: 1. Coagulate blood samples completely, then, centrifuge, and avoid hemolysis and particle. 2. NaN_3 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)