Datasheet for ABIN1112610

G-CSF ELISA Kit

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Overview

Quantity:	96 tests
Target:	G-CSF (CSF3)
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	For quantitative detection of G-CSF in mouse serum, plasma, body fluids, tissue lysates or cell culture supernatants.
Sample Type:	Cell Culture Supernatant, Plasma, Serum, Tissue Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 4 pg/mL
Components:	1. One 96-well plate pre-coated with anti-mouse G-CSF antibody 2. Lyophilized Mouse G-CSF standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-Mouse G-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:	G-CSF (CSF3)
Alternative Name:	G-CSF (CSF3 Products)
Background:	Granulocyte colony-stimulating factor (G-CSF), also known as colony-stimulating factor 3 (CSF 3), is a glycoprotein, growth factor and cytokine produced by a number of different tissues to stimulate the bone marrow to produce granulocytes and stem cells. The gene for G-CSF is located on chromosome 17, locus q11.2-q12, it has 4 introns, and that 2 different polypeptides are synthesized from the same gene by differential splicing of mRNA. G-CSF is a potent inducer of HSCs mobilization from the bone marrow into the bloodstream, although it has been shown that it does not directly affect the hematopoietic progenitors that are mobilized. G-CSF is also used to increase the number of hematopoietic stem cells in the blood of the donor before collection by leukapheresis for use in hematopoietic stem cell transplantation. It may also be given to the receiver, to compensate for conditioning regimens.
Pathways:	Cellular Response to Molecule of Bacterial Origin, Regulation of Actin Filament Polymerization

Application Details

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

Application Details

	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 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 1000 × g for 10 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 10min at 1000 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. 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)