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Datasheet for ABIN2859293

CSF3R ELISA Kit

1 Image

Overview

Quantity:	96 tests
Target:	CSF3R
Binding Specificity:	AA 25-621
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CSF3R/G-CSF R
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: E25-P621
Specificity:	NSO, E25-P621
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

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: CSF3R

Alternative Name: CSF3R ([CSF3R Products](#))

Background: Protein Function: Receptor for granulocyte colony-stimulating factor (CSF3), essential for granulocytic maturation. Plays a crucial role in the proliferation, differentiation and survival of cells along the neutrophilic lineage. In addition it may function in some adhesion or recognition events at the cell surface. .

Background: The granulocyte colony-stimulating factor receptor (G-CSF-R), also known as CD114 (Cluster of Differentiation 114), is a protein that in humans is encoded by the CSF3R gene. It is mapped to 1p35-p34.3. G-CSF-R is a cell-surface receptor for the granulocyte colony-stimulating factor (G-CSF). And the G-CSF-R is a transmembrane receptor that consists of an extracellular ligand-binding portion, a transmembrane domain, and the cytoplasmic portion that is responsible for signal transduction. In addition, GCSF-R ligand-binding is associated with dimerization of the receptor and signal transduction through proteins including Jak, Lyn, STAT, and Erk1/2.

Synonyms: Granulocyte colony-stimulating factor receptor,G-CSF receptor,G-CSF-R,CD114,CSF3R,GCSFR,

Full Gene Name: Granulocyte colony-stimulating factor receptor

Cellular Localisation: Isoform 2: Secreted.

Gene ID: 1441

UniProt: [Q99062](#)

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.

Comment: Tissue Specificity: One or several isoforms have been found in myelogenous leukemia cell line KG-1, leukemia U-937 cell line, in bone marrow cells, placenta, and peripheral blood granulocytes. Isoform GCSFR-2 is found only in leukemia U-937 cells. Isoform GCSFR-3 is

Application Details

highly expressed in placenta.

Plate: Pre-coated

Protocol: human CSF3R ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CSF3R has been precoated onto 96-well plates. Standards(NSO, E25-P621) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CSF3R 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 CSF3R amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human CSF3R 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 and plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human CSF3R standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 236, Standard deviation: 12.51, CV(%): 5.3
- Sample 2: n=16, Mean(pg/ml): 819, Standard deviation: 50, CV(%): 6.1
- Sample 3: n=16, Mean(pg/ml): 1237, Standard deviation: 59.4, CV(%): 4.8,
- Sample 1: n=24, Mean(pg/ml): 326, Standard deviation: 21.19, CV(%): 6.5
- Sample 2: n=24, Mean(pg/ml): 928, Standard deviation: 66.82, CV(%): 7.2
- Sample 3: n=24, Mean(pg/ml): 1528, Standard deviation: 84.04, CV(%): 5.5

Restrictions: For Research Use only

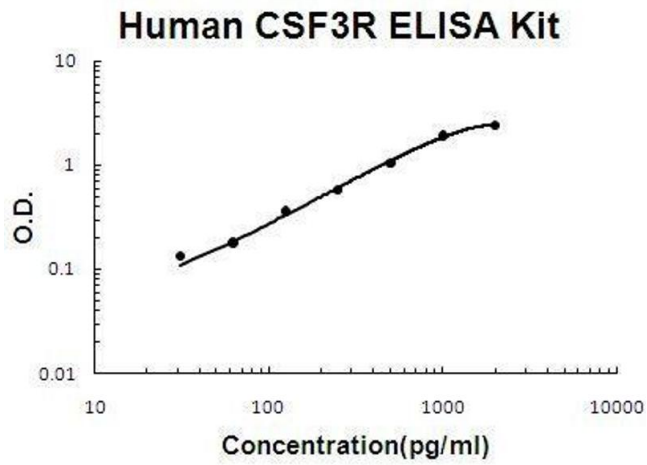
Handling

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 CSF3R/G-CSF R PicoKine ELISA Kit standard curve