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# **GM-CSF ELISA Kit**





#### Overview

Quantity:	1 kit
Target:	GM-CSF (CSF2)
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6 pg/mL - 1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

# **Product Details**

Purpose:	Sandwich ELISA for Quantitative Detection of Antigen
Sample Type:	Cell Culture Supernatant, Plasma (EDTA - heparin - citrate), Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Characteristics:	Synonyms: Colony stimulating factor, Colony stimulating factor 2 (granulocyte macrophage), CSF, CSF 2, CSF2, GMCSF, Granulocyte macrophage colony stimulating factor, MGC141935, MGC138897, Molgramostin, Sargramostim  Background: Granulocyte-macrophage colony-stimulating factor(GM-CSF) is also symbolized CSF2. Human GM-CSF is a glycoprotein that is essential for the in vitro proliferation and
	differentiation of precursor cells into mature granulocytes and macrophages. The human cDNA clones contain a single open-reading frame encoding a protein of 144 amino acids with a predicted molecular mass of 16,293 daltons and show 69 % nucleotide homology and 54 %

amino acid homology to mouse GM-CSF. The gene for human GM-CSF appears to exist as a single-copy gene. Human GM-CSF is a 22,000-dalton glycoprotein that stimulates the growth of myeloid progenitor cells and acts directly on mature neutrophils. The GM-CSF gene is localized by somatic cell hybrid analysis and in situ hybridization to human chromosome region 5q21-5q32, which is involved in interstitial deletions in the 5q- syndrome and acute myelogenous leukemia. A complementary DNA for the T lymphocyte-derived lymphokine, GM-CSF has been cloned, and recombinant GM-CSF protein has been expressed in yeast and purified to homogeneity. This purified human recombinant GM-CSF stimulates peripheral blood monocytes in vitro to become cytotoxic for the malignant melanoma cell line A419.

Gene Name: CSF2

Production: Natural and recombinant human GM-CSF. There is no detectable cross-reactivity with other relevant proteins.

Standard: Expression system for standard: E.coli, Immunogen sequence: A18-E144

# **Target Details**

Target:	GM-CSF (CSF2)
Alternative Name:	GM-CSF (CSF2 Products)
Gene ID:	1437
NCBI Accession:	NP_000749
UniProt:	P04141
Pathways:	JAK-STAT Signaling, Cellular Response to Molecule of Bacterial Origin

#### **Application Details**

**Application Notes:** 

Application Note: Useful in Sandwich ELISA for Quantitative Detection of Antigen. Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human GM-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, serum or plasma(heparin, EDTA, citrate) to each empty well. It is recommended that each human GM-CSF standard solution and each sample be measured in duplicate.

Blood Product Anticoagulant: Heparin Sodium

ELISA Dilution: 15.6pg/mL-1000pg/mL

Sample Volume: 100 µL

# **Application Details**

Plate:	Pre-coated
Restrictions:	For Research Use only

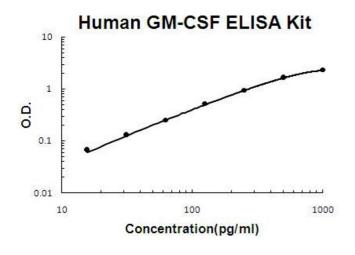
# Handling

Storage:	RT,4 °C,-20 °C

Storage Comment:

Store vials at 4°C prior to opening. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 6 months at 4°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage freeze at -20°C or below for 12 months. Avoid cycles of freezing and thawing.

### **Images**



#### **ELISA**

Image 1. Human GM-CSF Accusignal ELISA Kit Human GM-CSF AccuSignal ELISA Kit standard curve. Assay Range: 15.6pg/ml-1000pg/ml. Sensitivity: <1pg/ml.