

Human GM-CSF ELISA Kit (CSF2) ab174448

Recombinant SimpleStep ELISA

3 References 5 Images

Overview

Product name Human GM-CSF ELISA Kit (CSF2)

Detection method Colorimetric

Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Supernatant	8			1.4%

	Inter-assay				
	Sample	n	Mean	SD	CV%
	Supernatant	3			1.8%

Sample type Cell culture supernatant, Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 3.7 pg/ml

Range 15.625 pg/ml - 1000 pg/ml

Recovery	Sample specific recovery		
	Sample type	Average %	Range
	Cell culture supernatant	100	99% - 102%
	Serum	81	78% - 86%
	Cell culture media	100	98% - 101%
	Hep Plasma	84	84% - 86%
	EDTA Plasma	73	72% - 74%
	Cit plasma	79	77% - 80%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human
Product overview	Human GM-CSF ELISA (ab174448) kit is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of p53 protein in human serum, plasma and cell culture media. It uses our proprietary SimpleStep ELISA® technology. Quantitate human GM-CSF with 3.7 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate ([ab203359](#)) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes	Granulocyte-macrophage colony-stimulating factor (GM-CSF) is a cytokine that stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes. GM-CSF is used therapeutically in myeloid reconstitution following bone marrow transplant, bone marrow transplant engraftment failure or delay, mobilization and following transplantation of autologous peripheral blood progenitor cells, and following induction chemotherapy in older adults with acute myelogenous leukemia (AML). This kit recognizes Primate and Human GM-CSF which are 95% homologous.
--------------	--

Platform	Microplate
-----------------	------------

Properties

Storage instructions	Store at +4°C. Please refer to protocols.
-----------------------------	---

Components	1 x 96 tests	10 x 96 tests
10X Human GM-CSF Capture Antibody	1 x 600µl	1 x 6000µl
10X Human GM-CSF Detector Antibody	1 x 600µl	1 x 6000µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml
Antibody Diluent 4BI	1 x 6ml	10 x 6ml
Human GM-CSF Lyophilized Recombinant Protein	2 vials	2 x 10 vials
Plate Seals	1 unit	1 x 10 units

Components	1 x 96 tests	10 x 96 tests
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 x 10 units
Stop Solution	1 x 12ml	1 x 120ml
TMB Development Solution	1 x 12ml	1 x 120ml

Function

Cytokine that stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes.

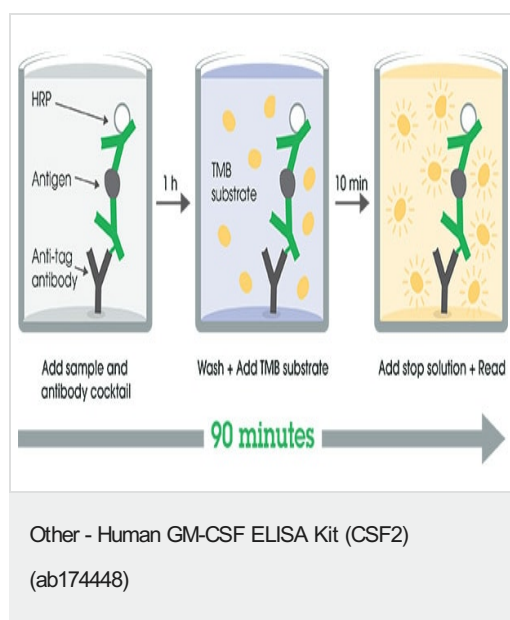
Sequence similarities

Belongs to the GM-CSF family.

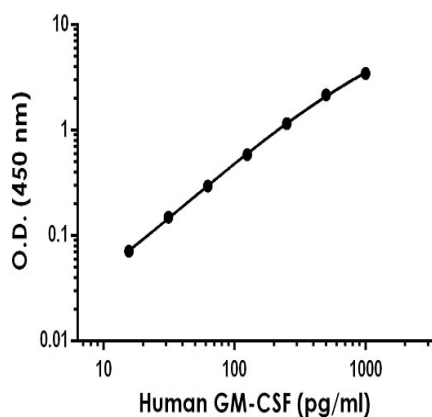
Cellular localization

Secreted.

Images

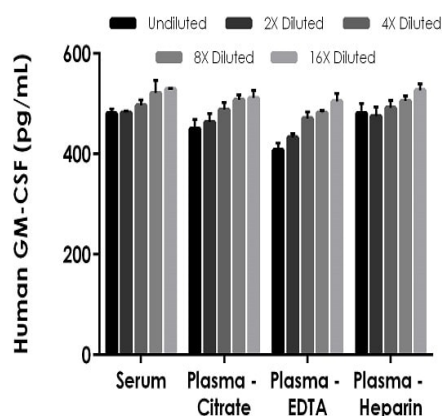


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



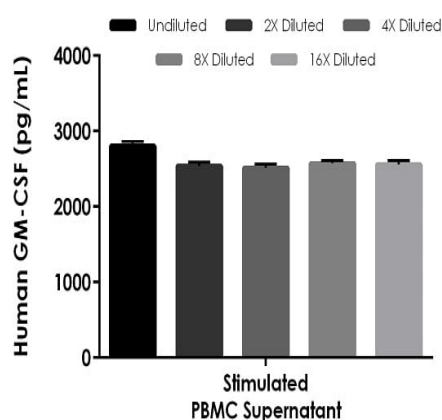
Example of human GM-CSF standard curve in Sample Diluent NS.

The GM-CSF standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean \pm SD) are graphed.



Interpolated concentrations of spike GM-CSF in human serum, and plasma samples.

The concentrations of GM-CSF were measured in duplicates, interpolated from the GM-CSF standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (citrate) 50%, plasma (EDTA) 50%, and plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$).



Interpolated concentrations of native GM-CSF in human cell culture supernatant sample.

The concentrations of GM-CSF were measured in duplicates, interpolated from the GM-CSF standard curves and corrected for sample dilution. Undiluted samples are as follows: Stimulated PBMC Cell Culture Supernatant 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean GM-CSF concentration was determined to be 2599 pg/mL in Stimulated PBMC Cell Culture Supernatant and undetectable in unstimulated PBMC Cell Culture Supernatant.

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human GM-CSF ELISA Kit
(CSF2) (ab174448)

To learn more about the advantages of recombinant antibodies see [here](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors