

Mouse G-CSF ELISA Kit (CSF3) ab197743

Recombinant SimpleStep ELISA

3 References 7 Images

Overview

Product name Mouse G-CSF ELISA Kit (CSF3)

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
RAW 264.7	5			5.7%

Inter-assay

Sample	n	Mean	SD	CV%
RAW 264.7	3			11.9%

Sample type Cell culture supernatant, Serum, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 5.4 pg/ml

Range 12.5 pg/ml - 800 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	97.2	86.2% - 106%
Cell culture media	103.5	98% - 106.5%
Cit plasma	105.2	95.1% - 116.9%

Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Mouse
Does not react with: Goat, Cow, Pig

Product overview Mouse G-CSF ELISA Kit (CSF3) (ab197743) is a single-wash 90 min sandwich ELISA designed

for the quantitative measurement of G-CSF (CSF3) protein in cell culture supernatant, cit plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse G-CSF (CSF3) with 5.4 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 factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. G-CSF induces granulocytes. G-CSF is a monomeric secreted protein.

Platform Microplate

Properties

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

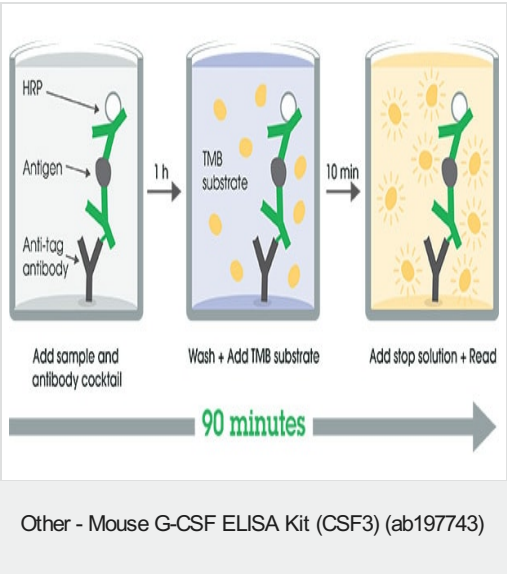
Components	1 x 96 tests
10X Mouse G-CSF Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Mouse G-CSF Capture Antibody (Lyophilized)	1 vial
Mouse G-CSF Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 25BS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml

Components	1 x 96 tests
TMB Development Solution	1 x 12ml

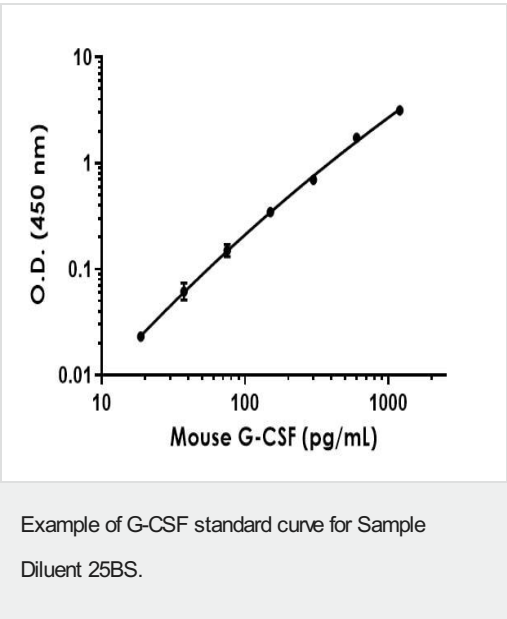
Relevance

Granulocyte Colony Stimulating Factor (G-CSF) a cytokine that controls the production, differentiation, and function of granulocytes. It is a potent stimulator of bone marrow cells especially those of neutrophil lineage. In addition, G-CSF can enhance the survival and activate the immunological functions of mature neutrophils. Recombinant human G-CSF has been developed by pharmaceutical companies, and since the late 1980's, multiple clinical trials have explored its efficacy in a variety of conditions.

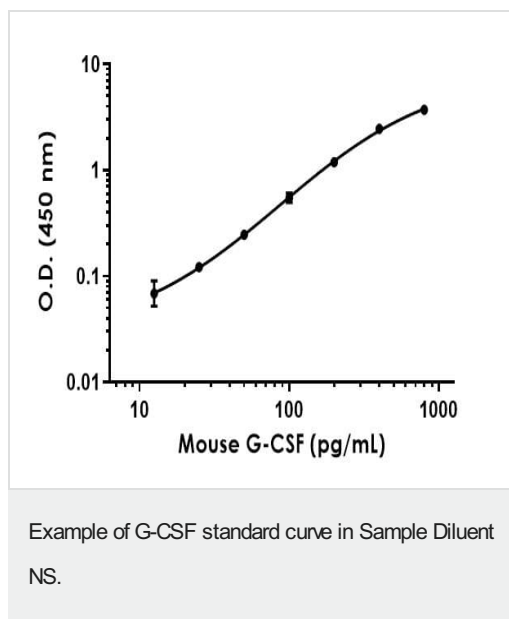
Images



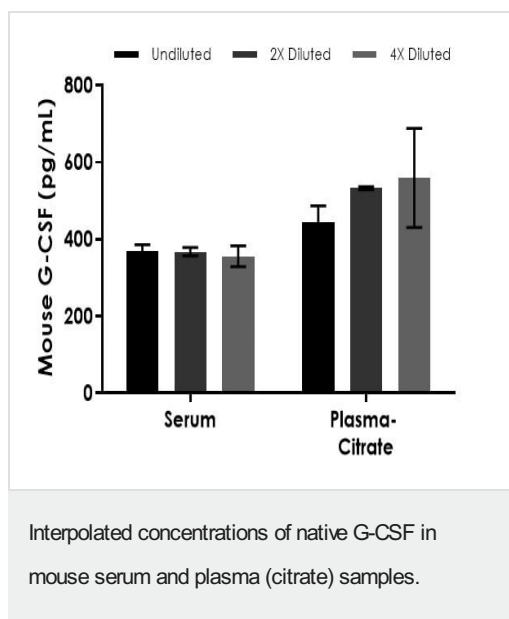
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



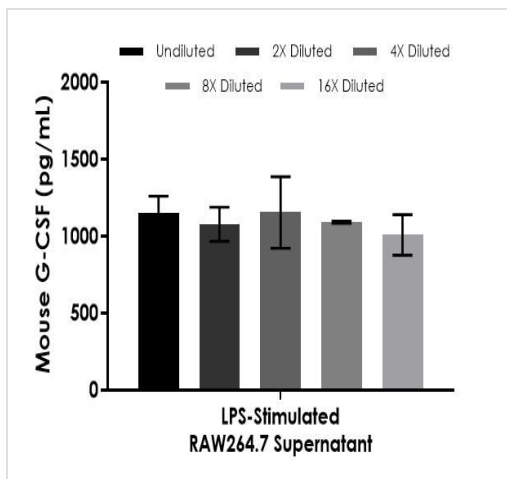
Background-subtracted data values (mean +/- SD) are graphed.



Background-subtracted data values (mean \pm SD) are graphed.

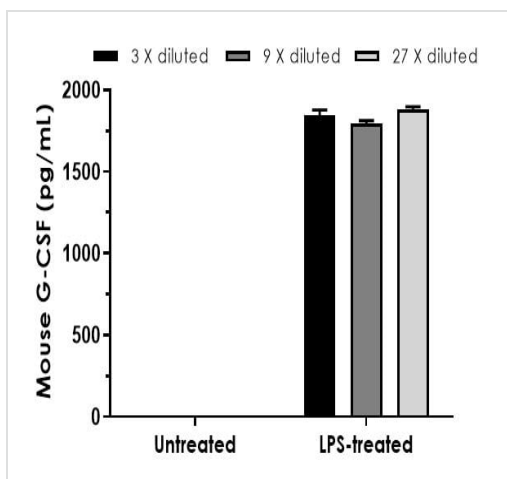


The concentrations of G-CSF were measured in duplicates, interpolated from the G-CSF standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50% and plasma (citrate) 50%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$).



Interpolated concentrations of native G-CSF in RAW264.7 LPSstimulated cell culture supernatant samples.

RAW 264.7 cells were 24 hour serum starved and continued to culture in the presence of 5 µg/mL lipopolysaccharides (LPS) for 48 hours. The concentrations of G-CSF were measured in duplicates, interpolated from the G-CSF standard curves and corrected for sample dilution. Undiluted samples are as follows: RAW264.7 supernatant 33%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



LPS-treatment of RAW 264.7 cells stimulates secretion of G-CSF.

RAW 264.7 cells were 24 hour serum starved and continued to culture either in the absence or in the presence of 5 µg/mL lipopolysaccharides (LPS) for 48 hours. Various dilutions (as indicated) of the cell culture supernatant samples were analyzed with this kit. Interpolated concentrations of G-CSF adjusted for sample dilution are graphed in pg of G-CSF per mL of supernatant (mean +/- SD, n = 2). Note that G-CSF is not detectable in untreated RAW 264.7 supernatant samples.

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Sandwich ELISA - Mouse G-CSF ELISA Kit (CSF3)
(ab197743)

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"

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