abcam

Product datasheet

Human Granulysin ELISA Kit ab256402

Recombinant SimpleStep ELISA®

7 Images

Overview

Product name Human Granulysin ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			3.5%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			0.4%

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

Assay type Sandwich (quantitative)

Sensitivity 8.22 pg/ml

Range 78.13 pg/ml - 5000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	117	114% - 119%
Serum	100	98% - 102%
EDTA Plasma	112	103% - 120%
Cit plasma	104	102% - 106%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Does not react with: Cow

Product overview

Human Granulysin ELISA Kit (ab256402) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Granulysin protein in cell culture supernatant, cit plasma, edta plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Granulysin with 8.22 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

Granulysin (GNLY) is a 15.5 kD protein is a member of the saposin-like protein (SAPLIP) family. It is mapped to 2p11.2. Granulysin functions to create holes in the target cell membrane and destroy it. It is a microbiocidal via induction of apoptosis. The gene is expressed in cytolytic granules with perforin, a pore forming protein as well as granzymes that are also involved in cytolysis. In addition to it. As an antimicrobial, Granulysin's activities include killing microbes that cause tuberculosis and malaria. It has been reported to be involved in tumor destruction. A series of peptides generated from the amino acid sequence of Granulysin are potential antibiotics. Granulysin shares 76% and 26% sequence homology with monkey and mouse, respectively.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

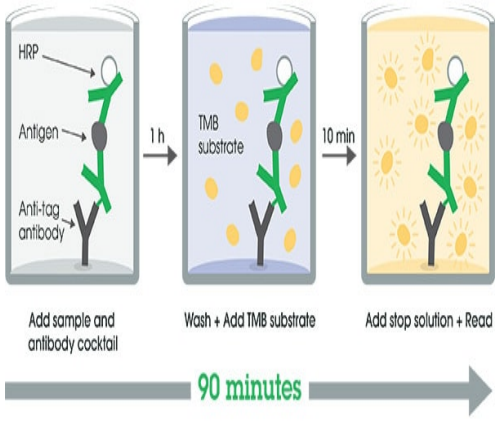
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human Granulysin Capture Antibody	1 x 600µl
10X Human Granulysin Detector Antibody	2 vials
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml

Components	1 x 96 tests
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BI	1 x 6ml
Human Granulysin Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

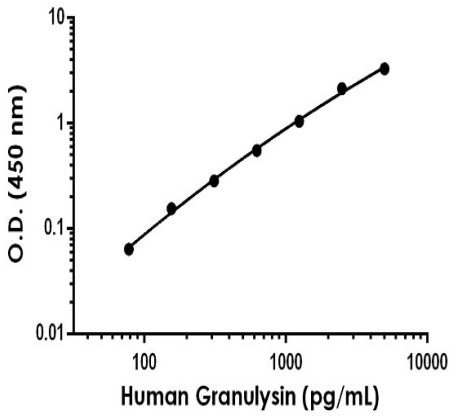
Function	Antimicrobial protein that kills intracellular pathogens. Active against a broad range of microbes, including Gram-positive and Gram-negative bacteria, fungi, and parasites. Kills Mycobacterium tuberculosis.
Tissue specificity	Expressed in natural killer and T-cells.
Sequence similarities	Contains 1 saposin B-type domain.
Post-translational modifications	A 9 kDa form is produced by proteolytic processing of a 15 kDa protein.
Cellular localization	Secreted. Located in the cytotoxic granules of T-cells, which are released upon antigen stimulation.

Images



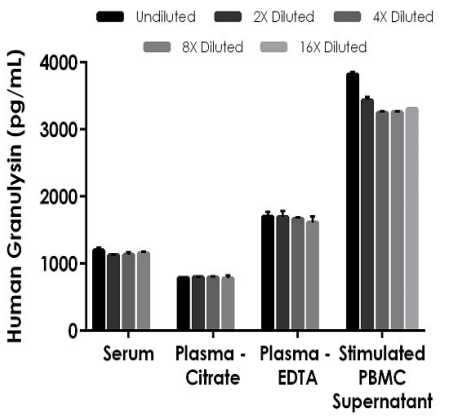
SimpleStep ELISA Protocol Diagram

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.



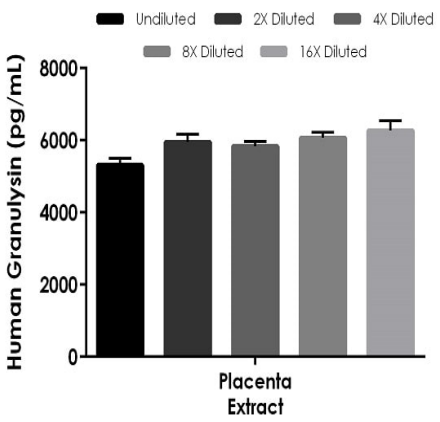
Example of human Granulysin standard curve in Sample Diluent NS.

The Granulysin standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



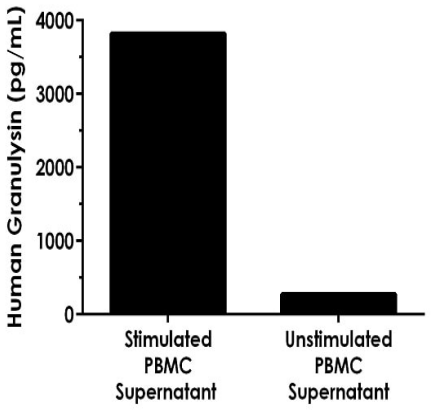
Interpolated concentrations of native Granulysin in human serum, plasma and cell culture supernatant samples.

The concentrations of Granulysin were measured in duplicates, interpolated from the Granulysin standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (citrate) 50%, plasma (EDTA) 50% and stimulated PBMC cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Granulysin concentration was determined to be 1153.29 pg/mL in serum, 790.67 pg/mL in plasma (citrate), 1668.29 pg/mL in plasma (EDTA), and 3387.74 pg/mL in stimulated PBMC supernatant.



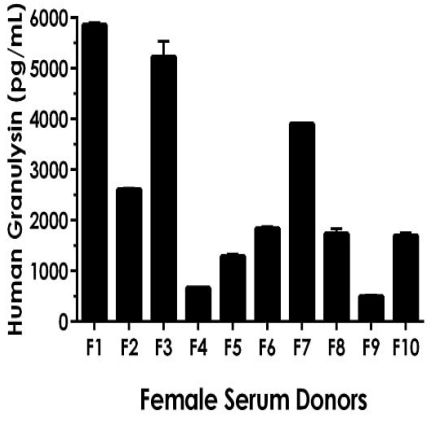
Interpolated concentrations of native Granulysin in human placenta extract based on a 250 µg/mL extract load.

The concentrations of Granulysin were measured in duplicate and interpolated from the Granulysin standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Granulysin concentration was determined to be 5888.16 pg/mL in placenta extract.



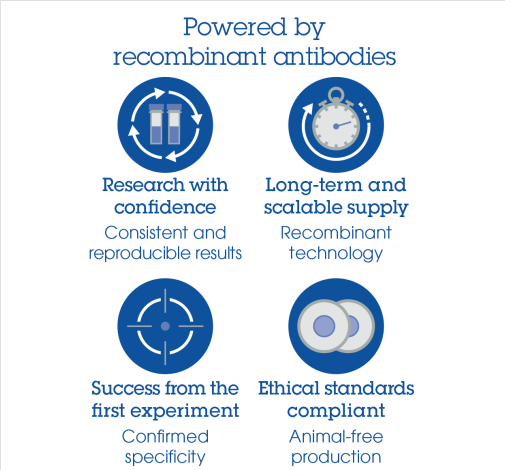
Neat unstimulated and PHA-M stimulated PBMC cell culture were measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Granulysin concentration was determined to be 274.19 pg/mL in unstimulated PBMC supernatant 3720.93 pg/mL in stimulated PBMC supernatant.



50% Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Granulysin concentration was determined to be 2536.17 pg/mL with a range of 500.32 – 5863.75 pg/mL.



Sandwich ELISA - Human Granulysin ELISA Kit (ab256402)

To learn more about the advantages of recombinant antibodies see here.

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