

Human Interferon gamma ELISA Kit ab300323

Recombinant SimpleStep ELISA[®]

8 Images

Overview

Product name Human Interferon gamma ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
Supernatant	8			7.4%

Inter-assay

Sample	n	Mean	SD	CV%
Supernatant	3			11.38%

Sample type Cell culture supernatant, Saliva, Serum, Cell culture media, Hep Plasma, EDTA Plasma

Assay type Sandwich (quantitative)

Sensitivity 3.428 pg/ml

Range 7.813 pg/ml - 500 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	104	97% - 115%
Serum	101	96% - 104%
Hep Plasma	103	93% - 114%
EDTA Plasma	100	93% - 106%
Cit plasma	101	95% - 109%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Human**Product overview**

Human Interferon gamma SimpleStep ELISA[®] kit is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Interferon gamma protein in human serum, plasma, saliva and cell culture supernatant. Quantitate Human Interferon gamma with 3.428 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.

Platform

Pre-coated microplate (12 x 8 well strips)

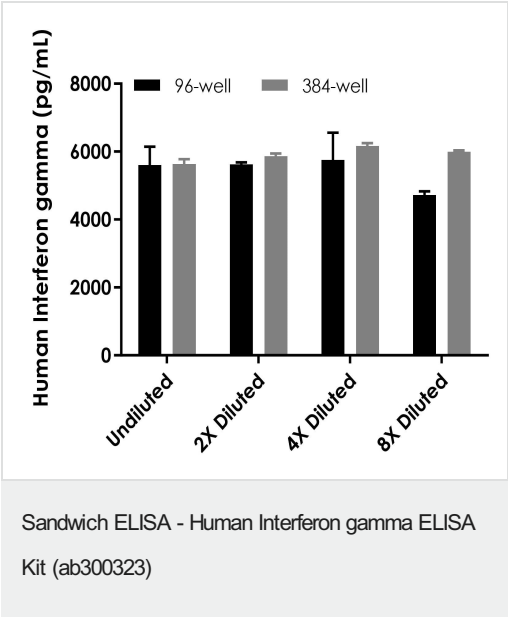
Properties**Storage instructions**

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

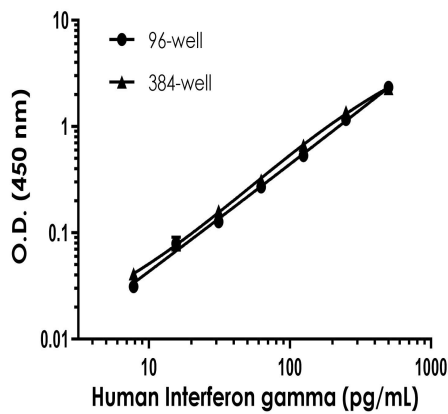
Components	96 tests	1 x 384 tests
10X Human Interferon gamma Capture Antibody	1 x 600µl	1 x 600µl
10X Human Interferon gamma Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	1 unit
Antibody Diluent 4BI	1 x 6ml	1 x 6ml
Human Interferon gamma Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 12ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	0 x 0 unit
Stop Solution	1 x 12ml	2 x 12ml
TMB Development Solution	1 x 12ml	2 x 12ml

Function	Produced by lymphocytes activated by specific antigens or mitogens. IFN-gamma, in addition to having antiviral activity, has important immunoregulatory functions. It is a potent activator of macrophages, it has antiproliferative effects on transformed cells and it can potentiate the antiviral and antitumor effects of the type I interferons.
Tissue specificity	Released primarily from activated T lymphocytes.
Involvement in disease	In Caucasians, genetic variation in IFNG is associated with the risk of aplastic anemia (AA) [MIM:609135]. AA is a rare disease in which the reduction of the circulating blood cells results from damage to the stem cell pool in bone marrow. In most patients, the stem cell lesion is caused by an autoimmune attack. T-lymphocytes, activated by an endogenous or exogenous, and most often unknown antigenic stimulus, secrete cytokines, including IFN-gamma, which would in turn be able to suppress hematopoiesis.
Sequence similarities	Belongs to the type II (or gamma) interferon family.
Post-translational modifications	Proteolytic processing produces C-terminal heterogeneity, with proteins ending alternatively at Gly-150, Met-157 or Gly-161.
Cellular localization	Secreted.

Images

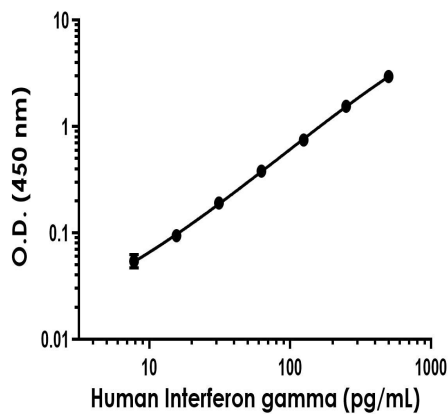


Interpolated concentration of native Interferon-gamma was measured in duplicate at different sample concentrations in 96-well vs. 384-well plates. Undiluted samples are 2.5% stimulated PBMC supernatant. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in Sample Diluent NS.



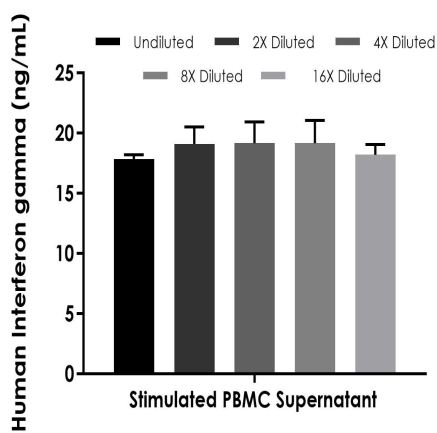
Example of human Interferon-gamma standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean \pm SD) are graphed.

Sandwich ELISA - Human Interferon gamma ELISA
Kit (ab300323)



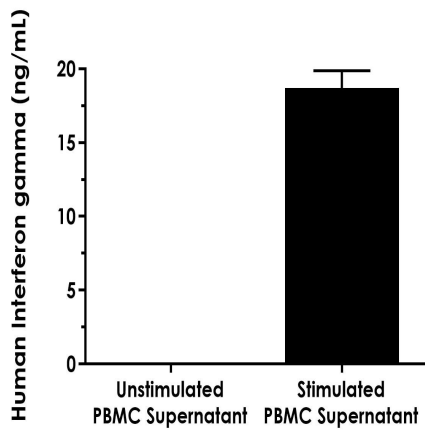
Example of human Interferon-gamma standard curve. Background-subtracted data values (mean \pm SD) are graphed.

Example of human Interferon-gamma standard curve
in Sample Diluent NS.



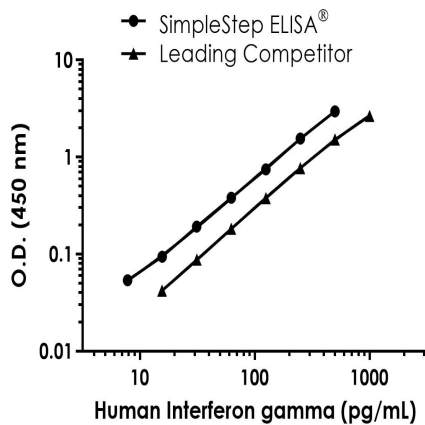
Interpolated concentration of native Interferon-gamma was measured in duplicate at different sample concentrations. Undiluted samples are 2.5% stimulated PBMC cell culture supernatant. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). Sample dilutions are made in Sample Diluent NS.

Interpolated concentrations of human Interferon-gamma in stimulated PBMC cell culture supernatant.



Interpolated concentrations of Human Interferon-gamma in PBMC cell culture supernatants.

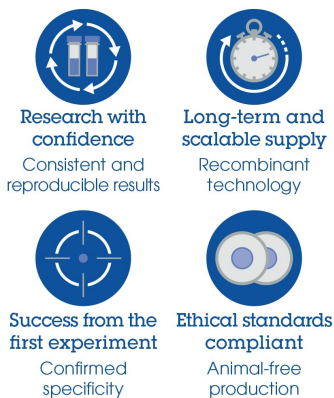
Interpolated concentration of native Interferon-gamma was measured in duplicate in human PBMC cell culture supernatants. Sample dilutions are made in Sample Diluent NS. Human PBMCs were cultured for 46 hours in the presence or absence of 1.5% PHA-M. The concentrations of human Interferon gamma were measured in three different dilutions of the supernatant samples in duplicates and interpolated from the Interferon gamma standard curve. The interpolated values are plotted (mean \pm SD, n=2).



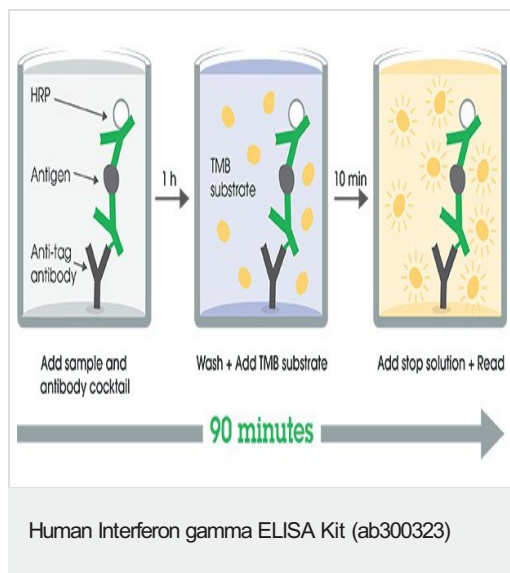
Standard curve comparison between Human Interferon-gamma SimpleStep ELISA kit (ab300323) and traditional ELISA kit from leading competitor. The SimpleStep ELISA kit shows increased sensitivity.

Human Interferon-gamma competitor standard curve comparison.

Why choose a recombinant antibody?



Human Interferon gamma ELISA Kit (ab300323)



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