abcam

Product datasheet

# Human IFN gamma High Sensitivity ELISA Kit ab46048

3 References 5 Images

## Overview

**Product name** Human IFN gamma High Sensitivity ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

| Sample | n | Mean | SD | CV% |
|---|---|---|---|---|
| Overall | | | | 3.9% |

Inter-assay

| Sample | n | Mean | SD | CV% |
|---|---|---|---|---|
| Overall | | | | 8.6% |

**Sample type** Cell culture supernatant, Serum, Plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** < 0.69 pg/ml

**Range** 0.78 pg/ml - 25 pg/ml

**Recovery**

Sample specific recovery

| Sample type | Average % | Range |
|---|---|---|
| Cell culture supernatant | 108 | % - % |
| Serum | 92 | % - % |
| Plasma | 72 | % - % |

**Assay time** 3h 00m

**Assay duration** Multiple steps standard assay

**Species reactivity** **Reacts with:** Human

**Product overview** Abcam's IFN gamma Human High Sensitivity *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of IFN gamma in Human sera, plasmas, buffered solutions and cell culture media.

A monoclonal antibody specific for IFN gamma has been coated onto the wells of the microtiter strips provided. Samples, including standards of known IFN gamma concentrations, control specimens or unknowns are pipetted into these wells. During the first incubation, the standards or samples and a biotinylated monoclonal antibody specific for IFN gamma are simultaneously incubated. After washing, the enzyme Streptavidin-HRP, that binds the biotinylated antibody is added, incubated and washed. A TMB substrate solution is added which acts on the bound enzyme to induce a colored reaction product. The intensity of this colored product is directly proportional to the concentration of IFN gamma present in the samples.

This kit will recognize both endogenous and recombinant Human IFN gamma.

Get results in 90 minutes with Human IFN gamma ELISA Kit (**ab174443**) from our SimpleStep ELISA® range.

**Platform** Microplate

## Properties

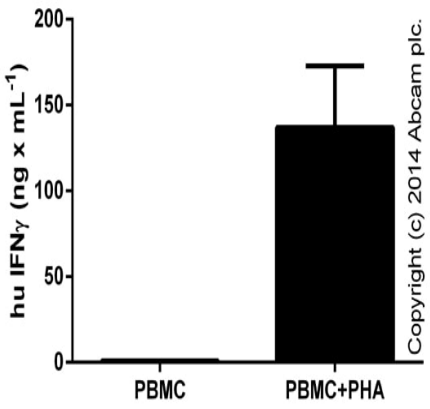
**Storage instructions** Store at +4°C. Please refer to protocols.

| Components | Identifier | 2 x 96 tests | 1 x 96 tests |
|---|---|---|---|
| 10X Standard Diluent Buffer | Black | 1 x 25ml | 1 x 15ml |
| 200X Wash Buffer | White | 2 x 10ml | 1 x 10ml |
| Amplification Diluent | Brown & blue spot | 1 x 25ml | 1 x 15ml |
| Amplifier | Yellow | 2 x 200µl | 1 x 200µl |
| Biotinylated Antibody Diluent | Red | 1 x 13ml | 1 x 7.5ml |
| Biotinylated anti-IFN gamma | Red | 2 x 0.4ml | 1 x 0.4ml |
| Chromogen TMB Substrate Solution | | 1 x 24ml | 1 x 11ml |
| HRP Diluent | Red | 2 x 23ml | 1 x 23ml |
| IFN gamma Microplate (12 x 8 well strips) | | 2 units | 1 unit |
| IFN gamma Standard (Lyophilized) | Yellow | 4 vials | 2 vials |
| Plastic Plate Covers | | 4 units | 2 units |
| Stop Reagent | Black | 2 x 11ml | 1 x 11ml |
| Streptavidin-HRP | | 4 x 5µl | 2 x 5µl |

**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

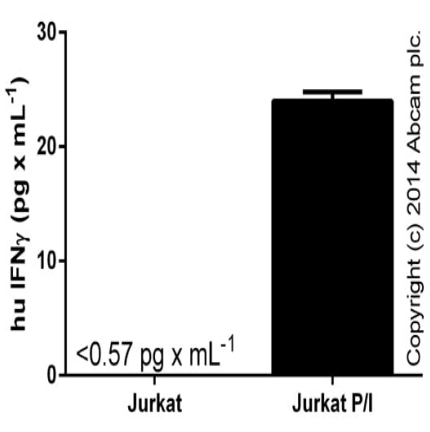
| | |
|---|---|
| | and antitumor effects of the type I interferons. |
| **Tissue specificity** | Released primarily from activated T lymphocytes. |
| **Involvement in disease** | In Caucasians, genetic variation in IFNG is associated with the risk of aplastic anemia (AA) [MIM:609135]. AA is a rare disease 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



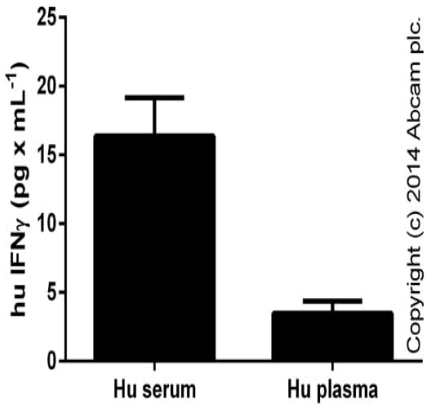

ELISA: IFN gamma High Sensitivity Human ELISA Kit (ab46048)

IFN gamma measured in cell culture supernatants from control or treated (48 hours; 2% PHA-M; LifeTechnologies) PBMCs, diluted 1/100-1/10000 (duplicates +/- SD).



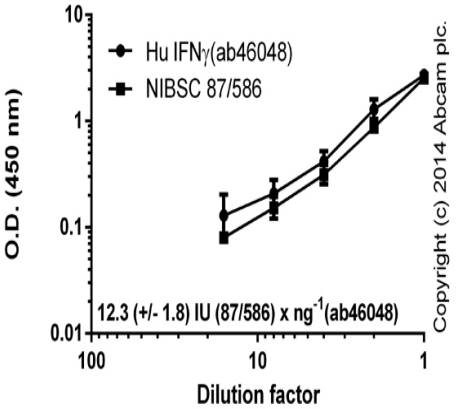

ELISA: IFN gamma High Sensitivity Human ELISA Kit (ab46048)

IFN gamma measured in undiluted cell culture supernatants from control or stimulated (48 hours with 50 ng x $mL^{-1}$ PMA (**ab120297**) and 1 µM ionomycin (**ab120116**)) Jurkat cells. Control sample was below limit of detection (<0.57 pg x $mL^{-1}$) (duplicates +/- SD).



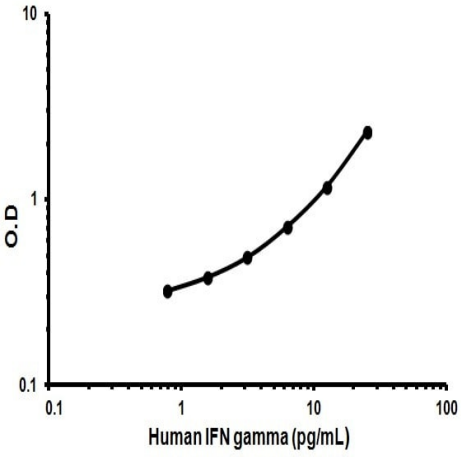

IFN gamma measured in undiluted human biological fluids; mouse and rat samples (plasma and serum) were below limit of detection (duplicates +/- SD).

ELISA: IFN gamma High Sensitivity Human ELISA Kit (ab46048)




Dilution curves of IFN gamma (ab46048) and NIBSC standard (87/586). One ng of standard IFN gamma corresponds to 12.3 (+/- 1.3) IU NIBSC 87/586. Background signal subtracted (duplicates; +/- SD).

ELISA: IFN gamma High Sensitivity Human ELISA Kit (ab46048)




Representative Standard Curve using ab46048

Typical Standard Curve

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