abcam

Product datasheet

Human IFN gamma ELISA Kit ab46025

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Overview

Product name Human IFN gamma ELISA Kit

Detection methodColorimetric

Precision

Sample	n	Mean	SD	CV%
Sample	30			4.9%

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Sample	30			10%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 5 pg/ml

Range 12.5 pg/ml - 400 pg/ml

Recovery 107 %
Assay time 2h 40m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Human interferon gamma ELISA kit is designed for the quantitative measurement of IFN gamma

in supernatants, buffered solutions or serum and plasma samples and other body fluids.

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.

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

Get higher sensitivity in only 90 minutes with Human IFN gamma ELISA Kit ($\underline{ab174443}$) from our SimpleStep ELISA $^{\circledR}$ range.

Platform

Microplate

Properties

Storage instructions

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

Components	Identifier	1 x 96 tests	2 x 96 tests	1 x 96 tests	2 x 96 tests
10X Standard Diluent Buffer	Black	1 x 15ml	1 x 25ml	1 x 15ml	1 x 25ml
200X Wash Buffer	White	1 x 10ml	2 x 10ml	1 x 10ml	2 x 10ml
Biotinylated Antibody Diluent	Red	1 x 7.5ml	1 x 13ml	1 x 7.5ml	1 x 13ml
Biotinylated anti-IFN gamma	Red	1 x 400µl	2 x 400µl	1 x 400µl	2 x 400µl
Chromogen TMB Substrate Solution		1 x 11ml	1 x 24ml	1 x 11ml	1 x 24ml
Control	Silver	2 vials	4 vials	2 vials	4 vials
HRP Diluent	Red	1 x 12ml	1 x 23ml	1 x 12ml	1 x 23ml
IFN gamma Microplate (12 x 8 well strips)		1 unit	2 units	1 unit	2 units
IFN gamma Standard (Lyophilized)	Yellow	2 vials	4 vials	2 vials	4 vials
Standard Diluent (Serum)		1 x 7ml	2 x 7ml	1 x 7ml	2 x 7ml
Stop Reagent	Black	1 x 11ml	2 x 11ml	1 x 11ml	2 x 11ml
Streptavidin-HRP		2 x 5µl	4 x 5µl	2 x 5µl	4 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

Involvement in disease

Released primarily from activated T lymphocytes.

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

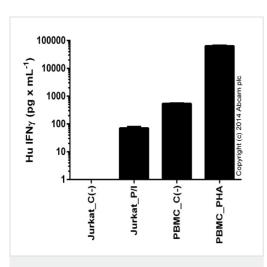
 $\label{proteon} \mbox{Proteolytic processing produces C-terminal heterogeneity, with proteins ending alternatively at $d = 1$ and $d = 1$.}$

Gly-150, Met-157 or Gly-161.

Cellular localization

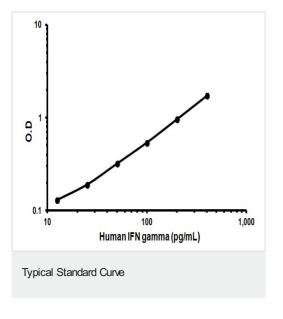
Secreted.

Images



Jurkat were stimulated for 48 hours with 50 ng x mL-1 of PMA (ab120297) and 1 uM lonomycin (ab120116) and PBMCs were stimulated for 48 hours with 2 % PHA-M (LifeTechnologies). Cell free supernatants were tested, showing results after background signal was subtracted (duplicates +/- SD).

Sandwich ELISA - IFN gamma Human ELISA Kit (ab46025)



Representative Standard Curve using ab46025

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