Human IFN gamma ELISA Kit ab46025

Overview

Product name: Human IFN gamma ELISA Kit
Detection method: Colorimetric

Precision

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>30</td>
<td></td>
<td></td>
<td>4.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>30</td>
<td></td>
<td></td>
<td>10%</td>
</tr>
</tbody>
</table>

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

Get higher sensitivity in only 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.

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

**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

Jurkat were stimulated for 48 hours with 50 ng x mL⁻¹ of PMA (ab120297) and 1 uM ionomycin (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).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
We provide support in Chinese, English, French, German, Japanese and Spanish

- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.

**Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors