**Product datasheet**

**Human IFN gamma ELISA Kit ab46025**

**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></td>
</tr>
<tr>
<td></td>
<td></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>
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<td>Sample</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></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**

Abcam’s IFN gamma Human in vitro ELISA (Enzyme-Linked Immunosorbent Assay) 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.

**Tested applications**
**Suitable for:** Sandwich ELISA

**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>
</tr>
</thead>
<tbody>
<tr>
<td>10X Standard Diluent Buffer</td>
<td>Black</td>
<td>1 x 25ml</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Biotinylated Antibody Diluent</td>
<td>Red</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>
</tr>
<tr>
<td>Control</td>
<td>Silver</td>
<td>2 vials</td>
<td>4 vials</td>
</tr>
<tr>
<td>HRP Diluent</td>
<td>Red</td>
<td>1 x 23ml</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>
</tr>
<tr>
<td>IFN gamma Standard (Lyophilized)</td>
<td>Yellow</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>
</tr>
<tr>
<td>Stop Reagent</td>
<td>Black</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>
</tr>
<tr>
<td>Chromogen TMB Substrate Solution</td>
<td></td>
<td>1 x 11ml</td>
<td>1 x 24ml</td>
</tr>
<tr>
<td>200X Wash Buffer</td>
<td>White</td>
<td>1 x 10ml</td>
<td>2 x 10ml</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.

### Applications

Our **Abpromise guarantee** covers the use of **ab46025** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

### 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).

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**Sandwich ELISA - IFN gamma Human ELISA Kit (ab46025)**

**Representative Standard Curve using ab46025**

**Typical Standard Curve**

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