**Product Datasheet**

**Rat IFN gamma ELISA Kit ab113349**

**Overview**

- **Product name**: Rat IFN gamma ELISA Kit
- **Detection method**: Colorimetric
- **Sample type**: Cell culture supernatant, Plasma
- **Assay type**: Sandwich (quantitative)
- **Sensitivity**: < 100 pg/ml
- **Range**: 123 pg/ml - 30000 pg/ml
- **Recovery**: 98%

### Sample specific recovery

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell culture supernatant</td>
<td>99.29</td>
<td>89% - 111%</td>
</tr>
<tr>
<td>Plasma</td>
<td>92.63</td>
<td>78% - 104%</td>
</tr>
</tbody>
</table>

**Assay duration**

- Multiple steps standard assay

**Species reactivity**

- **Reacts with**: Rat

**Product overview**

Abcam’s IFN gamma Rat ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Rat IFN gamma in plasma and cell culture supernatants. (Rat IFN gamma concentration in normal plasma is pretty low, it may not be detected in this assay).

This assay employs an antibody specific for IFN gamma coated on a 96-well plate. Standards and samples are pipetted into the wells and IFN gamma present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Rat IFN gamma antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of IFN gamma bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

We have not been able to detect the endogenous Rat IFN-gamma in normal serum with ab113349, only in serum spiked with Rat IFN-gamma.

**Platform**

- Microplate
Storage instructions
Store at -20°C. Please refer to protocols.

### Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>200X HRP-Streptavidin Concentrate</td>
<td>1 x 200µl</td>
</tr>
<tr>
<td>20X Wash Buffer Concentrate</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>5X Assay Diluent B</td>
<td>1 x 15ml</td>
</tr>
<tr>
<td>Assay Diluent A</td>
<td>1 x 30ml</td>
</tr>
<tr>
<td>Biotinylated anti-rat IFN Gamma (lyophilized)</td>
<td>2 vials</td>
</tr>
<tr>
<td>IFN gamma Microplate (12 x 8 wells)</td>
<td>1 x 96 units</td>
</tr>
<tr>
<td>Recombinant rat IFN gamma Standard (lyophilized)</td>
<td>2 vials</td>
</tr>
<tr>
<td>Stop Solution</td>
<td>1 x 8ml</td>
</tr>
<tr>
<td>TMB One-Step Substrate Reagent</td>
<td>1 x 12ml</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.
Typical data B

Typical data A

Representative standard curve using ab113349

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