

# Rat Interferon gamma ELISPOT Kit ab64032

★ ★ ★ ★ ★ 1 Abreviews

### Overview

---

**Product name** Rat Interferon gamma ELISPOT Kit

**Detection method** Colorimetric

**Sample type** Suspension cells

**Assay type** Sandwich (qualitative)

**Assay duration** Multiple steps standard assay

**Species reactivity** **Reacts with:** Rat

**Product overview** The ELISPOT assay is designed to enumerate cytokine producing cells in a single cell suspension. This method has the advantage of requiring a minimum of in-vitro manipulations allowing cytokine production analysis as close as possible to in-vivo conditions in a highly specific way. This technique is designed to determine the frequency of cytokine producing cells under a given stimulation, and the follow-up of such frequency during a treatment and/or a pathological state. Elispot assay constitutes an ideal tool in the TH1 / TH2 response, vaccine development, viral infection monitoring and treatment, cancerology, infectious diseases, autoimmune diseases and transplantation.

Abcam Elispot assay is based on sandwich immuno-enzyme technology. Cell secreted cytokines or soluble molecules are captured by coated antibodies avoiding diffusion in supernatant, protease degradation or binding on soluble membrane receptors. After cell removal, the captured cytokines are revealed by tracer antibodies and appropriate conjugates.

#### Principal

After cell stimulation, locally produced cytokines are captured by a specific monoclonal antibody. After cell lysis, trapped cytokine molecules are revealed by a secondary biotinylated detection antibody, which is in turn recognised by streptavidin conjugated to alkaline phosphatase. PVDF-bottomed-well plates are then incubated with BCIP/NBT substrate. Colored "purple" spots indicate cytokine production by individual cells.

Recognizes natural rat Interferon gamma.

**Tested applications** **Suitable for:** ELISpot

**Platform** Microplate

### Properties

---

**Storage instructions**

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

Components	1 x 96 tests	5 x 96 tests
Bovine Serum Albumin	1 x 2g	1 x 2g
IFN $\gamma$ Biotinylated Detection Antibody	1 vial	1 vial
Rat IFN $\gamma$ Pre-coated 96-well PDVF-bottomed plates	1 unit	5 units
Ready-to-use BCIP/NBT substrate buffer	1 x 11ml	2 x 25ml
Streptavidin - Alkaline Phosphatase conjugated	1 x 10 $\mu$ l	1 x 50 $\mu$ l

**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**

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab64032 in the following tested applications.

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

Application	Abreviews	Notes
ELISpot		Use at an assay dependent dilution.

**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> or contact our technical team.

### **Terms and conditions**

---

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