# abcam

# Product datasheet

# Rat Interferon gamma ELISPOT Kit (with un-coated plates) ab46591

#### 製品の概要

製品名 Rat Interferon gamma ELISPOT Kit (with un-coated plates)

検出方法 Colorimetric

サンプルの種類 Suspension cells

アッセイタイプ Sandwich (qualitative)

ステップ Multiple steps standard assay

種交差性 交差種: Rat

製品の概要 The Rat Interferon gamm

The Rat Interferon gamma ELISPOT Kit (with un-coated plates) 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.

This 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.

アプリケーション 適用あり: ELISpot

試験プラットフォーム Microplate

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#### 製品の特性

#### 保存方法

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

| 内容   | 5 x 96 tests | 10 x 96 tests |
|--|--------------|---------------|
| 96 PVDF-bottomed-well plates.                  | 5 units      | 10 units      |
| Bovine Serum Albumin                           | 1 x 1g       | 2 x 1g        |
| Dry Skimmed milk                               | 1 vial       | 2 vials       |
| IFNγ Biotinylated Detection Antibody           | 1 vial       | 2 vials       |
| Rat IFNγ Capture antibody                      | 1 x 500µl    | 2 x 500µl     |
| Ready-to-use BCIP/NBT substrate buffer         | 1 x 50ml     | 2 x 50ml      |
| Streptavidin - Alkaline Phosphatase conjugated | 1 x 50µl     | 2 x 50µl      |

機能 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.

組織特異性 Released primarily from activated Tlymphocytes.

関連疾患 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.

**配列類似性** Belongs to the type II (or gamma) interferon family.

翻訳後修飾 Proteolytic processing produces C-terminal heterogeneity, with proteins ending alternatively at

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

細胞内局在 Secreted.

#### アプリケーション

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| アプリケーション | Abreviews | 特記事項                                |
|----------|-----------|-------------------------------------|
| ELISpot  |           | Use at an assay dependent dilution. |

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