

Product datasheet

Human Interferon Gamma + Granzyme B ELISPOT Kit (without plates) ab48463

製品の概要

製品名 Human Interferon Gamma + Granzyme B ELISPOT Kit (without plates)

サンプルの種類 Cell culture supernatant, Cell culture extracts

アッセイタイプ Sandwich (qualitative)

ステップ Multiple steps standard assay

種交差性 交差種: Human

製品の概要

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, oncology, 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.

The dual colour Elispot allows you to monitor the production of two cytokines simultaneously in the same well.

Principle of the Method

After cell stimulation, locally produced cytokines are captured by IFN gamma and Granzyme B specific monoclonal antibodies. After cell lysis, trapped cytokine molecules are revealed by a secondary anti-IFN gamma FITC conjugated antibody and a biotinylated anti-Granzyme B antibody. Those are in turn recognised by anti-FITC HRP and streptavidin-AP conjugates. PVDF-bottomed-well plates are then incubated first with AEC substrate buffer, washed and subsequently incubated with BCIP/NBT. Coloured red/brownish spots indicate IFN gamma production while Granzyme B is revealed by blue/purple spots.

アプリケーション 適用あり: ELISpot

試験プラットフォーム Reagents

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 | 15 x 96 tests | 20 x 96 tests |
|---|--------------|---------------|---------------|---------------|
| 10 x concentrate buffer for the preparation of AEC buffer | 1 x 5ml | 2 x 5ml | 3 x 5ml | 4 x 5ml |
| 50 x concentrate AEC substrate buffer | 1 x 1ml | 2 x 1ml | 3 x 1ml | 4 x 1ml |
| Anti-FITC antibody HRP conjugate | 1 x 100µl | 2 x 100µl | 3 x 100µl | 4 x 100µl |
| Bovine Serum Albumin | 1 x 1g | 2 x 1g | 3 x 1g | 4 x 1g |
| Dry Skimmed milk | 1 x 1g | 2 x 1g | 3 x 1g | 4 x 1g |
| Granzyme B Biotinylated detection antibody | 1 vial | 2 vials | 3 vials | 4 vials |
| Granzyme B Capture Antibody | 1 x 500µl | 2 x 500µl | 3 x 500µl | 4 x 500µl |
| Human IFN Gamma Capture antibody | 1 x 500µl | 2 x 500µl | 3 x 500µl | 4 x 500µl |
| IFN γ FITC conjugated detection antibody | 1 vial | 2 vials | 3 vials | 4 vials |
| Ready-to-use BCIP/NBT substrate buffer | 1 x 50ml | 2 x 50ml | 3 x 50ml | 4 x 50ml |
| Streptavidin - Alkaline Phosphatase conjugated | 1 x 50µl | 2 x 50µl | 3 x 50µl | 4 x 50µl |

関連性

Interferon Gamma is 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. Granzyme B is necessary for target cell lysis in cell-mediated immune responses. It cleaves after Asp. Seems to be linked to an activation cascade of caspases (aspartate-specific cysteine proteases) responsible for apoptosis execution. Cleaves caspase-3, -7, -9 and 10 to give rise to active enzymes mediating apoptosis.

アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab48463** in the following tested applications.

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

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

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