

Human Interferon gamma + IL10 FLUOROSPOT Kit ab46652

概述

产品名称 人 Interferon gamma + IL10 FLUOROSPOT 试剂盒

检测方法 Fluorescent

样品类型 Cell culture supernatant, Cell culture extracts

检测类型 Sandwich (qualitative)

实验步骤 Multiple steps standard assay

种属反应性 与反应: Human

产品概述

Intended use

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.

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.

Principle of the method

After cell stimulation, locally produced cytokines are captured by IFN gamma and IL10 specific monoclonal antibodies. After cell lysis, trapped cytokine molecules are revealed by a secondary anti-IFN gamma FITC-conjugated antibody and a biotinylated anti-IL10 antibody. Those are in turn recognised by anti-FITC green fluorescent dye and streptavidin-phycoerythrin conjugates. PVDF-bottomed-well plates are then read under a UV light beam. Green fluorescent spots indicate IFN gamma production while IL10 is revealed by red spots. Yellow spots will indicate dual cytokine producing cells.

经测试应用 适用于: FluroSpot

平台 Microplate

性能

存放说明

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

组件	5 x 96 tests	10 x 96 tests
96 PVDF-bottomed-well plates.	5 units	10 units
Anti-FITC antibody green fluorescence conjugate.	1 vial	2 vials
Biotinylated detection antibody for IL-10 (liquid form, resuspend in 0.1mL)	1 vial	2 vials
Bovine Serum Albumin	1 x 1g	2 x 1g
Human IFN γ Capture antibody	1 x 500 μ l	2 x 500 μ l
Human IL-10 Capture antibody	1 x 500 μ l	2 x 500 μ l
FITC conjugated detection antibody for IFN γ (resuspend in 0.55mL)	1 vial	2 vials
Fluorescence buffer	1 x 2.5ml	2 x 2.5ml
Streptavidin-phycoerythrin conjugate.	1 vial	2 vials

相关性

Mammalian Interferon gamma is mainly produced by T lymphocytes and NK cells. It is a pleiotropic cytokine involved in the regulation of nearly all phases of immune and inflammatory responses, including the activation, growth and differentiation of T cell, B cells, macrophages, NK cells and other cell types such as endothelial cells and fibroblasts. It has weak antiviral and antiproliferative activity, and potentiates the antiviral and anti tumor effects of IFN alpha/beta (type I interferon). It is upregulated by IL2, FGF basic, EGF and downregulated by vitamin D3 or DMN. Labile at pH 2. Interleukins (ILs) are a large group of cytokines that are produced mainly by leukocytes, although some are produced by certain phagocytes and auxiliary cells. ILs have a variety of functions, but most function to direct other immune cells to divide and differentiate. Each IL acts on a specific, limited group of cells through a receptor specific for that IL. Human IL10 is a non glycosylated polypeptide consisting of 160 amino acids. There is 73% homology between the human and mouse IL10 proteins, however, the human IL10 acts on both human and mouse target cells, while the mouse IL10 has species specific activity. The cellular sources of IL10 are CD4+ T cells and T cell clones, thymocytes, B cells and B cell lymphomas, macrophages, mast cell lines and keratinocytes. IL10 will stimulate the growth of stem cells, mast cells and thymocytes. IL10 enhances cytotoxic T cell development, and costimulates B cell differentiation and immunoglobulin secretion. IL10 inhibits cytokine production by macrophages and suppresses macrophage class II MHC expression. The human IL10 gene is on human chromosome 1.

细胞定位

Secreted

应用

Our [Abpromise guarantee](#) covers the use of **ab46652** in the following tested applications.

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

应用	Ab评论	说明
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应用	Ab评论	说明
FluroSpot		Use at an assay dependent dilution.

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