

Product datasheet

Human IL-10 + IL-2 FLUOROSPOT Set ab48460

Overview

Product name Human IL-10 + IL-2 FLUOROSPOT Set

Detection method Fluorescent

Sample type Suspension cells

Assay type Sandwich (qualitative)

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

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, 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.

Principle of Method

After cell stimulation, locally produced cytokines are captured by IL-10 and IL-2 specific monoclonal antibodies. After cell lysis, trapped cytokine molecules are revealed by a secondary anti-IL-10 FITC conjugated antibody and a biotinylated anti-IL-2 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 IL-10 production while IL-2 is revealed by red spots. Yellow spots will indicate dual cytokine producing cells.

Tested applications **Suitable for:** FluroSpot

Platform Microplate

Properties

Storage instructions

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

Components	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-2 (resuspend in 0.55mL).	1 vial	2 vials
Bovine Serum Albumin	1 x 1g	2 x 1g
Human IL-10 Capture antibody	1 x 500µl	2 x 500µl
Capture antibody for IL-2	1 x 500µl	2 x 500µl
FITC conjugated detection antibody for IL-10(resuspend in 0.55mL).	1 vial	2 vials
Streptavidin-phycoerythrin conjugate.	1 vial	2 vials

Relevance

IL-2 is produced by T-cells in response to antigenic or mitogenic stimulation, this protein is required for T-cell proliferation and other activities crucial to regulation of the immune response. Can stimulate B-cells, monocytes, lymphokine-activated killer cells, natural killer cells, and glioma cells. IL-10 inhibits the synthesis of a number of cytokines, including IFN-gamma, IL-2, IL-3, TNF and GM-CSF produced by activated macrophages and by helper T-cells.

Cellular localization

Secreted

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab48460 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
FluroSpot		Use at an assay dependent dilution.

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