abcam

Product datasheet

Human IL-17F ELISPOT Kit (with un-coated plates) ab105242

1 Image

Overview

Product name	Human IL-17F ELISPOT Kit (with un-coated plates)
Detection method	Colorimetric
Sample type	Suspension cells
Assay type	Sandwich (qualitative)
Assay duration	Multiple steps standard assay
Product overview	ab105242 is a highly specific immunoassay for the analysis of cytokine and other soluble molecule production and secretion from T-cells at a single cell level in conditions closely comparable to the in-vivo environment with minimal cell manipulation. This technique is designed to determine the frequency of cytokine producing cells under a given stimulation and the comparison of such frequency against a specific treatment or pathological state. The ELISPOT assay constitutes an ideal tool in the investigation of Th1 / Th2 responses, vaccine development, viral infection monitoring and treatment, oncology, infectious disease, autoimmune diseases and transplantation. Utilising sandwich immune-enzyme technology, ELISPOT assays can detect both secreted cytokines and single cells that simultaneously produce multiple cytokines. 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. A capture antibody highly specific for the molecule of interest is coated to the wells of a PVDF bottomed 96 well microtiter plate either during kit manufacture or in the laboratory. The plate is then blocked to minimise any non-antibody dependent unspecific binding and washed. Cell suspension and stimulant are added and the plate incubated allowing the specific antibodies to bind any molecules produced. Cells are then removed by washing prior to the addition of Biotinylated detection antibodies which bind to the previously captured molecule. Enzyme conjugated streptavidin is then added binding to the detection antibodies. Following incubation and washing substrate is then applied to the wells resulting in coloured spots which can be quantified using appropriate analysis software or manually using a microscope. See Figure 1 for visual scheme. The assay recognizes natural human IL-17F. After testing, no cross reactivity was observed for

IL17A, IL17B, IL17D, IL17E, IL5, IL23 and Perforin. The antibody pair shows cross reactivity with the human IL17A + IL-17F heterodimer.

Notes

Store kit reagents between 4°C.

Uncoated plates should be stored at RT.

Immediately after use remaining reagents should be returned to cold storage (4°C).

All reagents should be warmed to room temperature before use.

BCIP/NBT buffer is potentially carcinogenic and should be disposed of appropriately, caution should be taken when handling this reagent, always wear gloves.

Capture Antibody is supplied sterile: once opened keep the vial sterile or aliquot and store at -20^{O}C. For optimal performance prepare the Capture Antibody dilution immediately before use.

If not used within a short period of time, reconstituted Detection Antibody should be aliquoted and stored at -20°C. In these conditions the reagent is stable for at least one year.

For optimal performance prepare the Streptavidin-AP dilution immediately prior to use. Do not keep this solution for further experiments.

Tested applications

Suitable for: ELISpot

Platform

Microplate

Properties

Storage instructions

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

Components	5 x 96 tests	10 x 96 tests
Bovine Serum Albumin	1 x 1g	2 x 1g
Human IL-17F Biotinylated detection antibody	1 vial	2 vials
Human IL-17F Capture antibody	1 x 500µl	2 x 500µl
Ready-to-use BCIP/NBT substrate buffer	1 x 50ml	2 x 50ml
Sterile 96 PVDF-bottomed-well plates	5 units	10 units
Streptavidin - Alkaline Phosphatase conjugated	1 x 50µl	2 x 50µl

Function

Ligand for IL17RA and IL17RC (PubMed:17911633). The heterodimer formed by IL17A and IL17F is a ligand for the heterodimeric complex formed by IL17RA and IL17RC (PubMed:18684971). Involved in stimulating the production of other cytokines such as IL6, IL8 and CSF2, and in regulation of cartilage matrix turnover (PubMed:11591732, PubMed:11591768, PubMed:11574464). Also involved in stimulating the proliferation of peripheral blood mononuclear cells and T-cells and in inhibition of angiogenesis (PubMed:11591732). Plays a role in the

	induction of neutrophilia in the lungs and in the exacerbation of antigen-induced pulmonary allergic inflammation.
Tissue specificity	Expressed in activated, but not resting, CD4+ T-cells and activated monocytes.
Involvement in disease	Candidiasis, familial, 6
Sequence similarities	Belongs to the IL-17 family.
Cellular localization	Secreted.

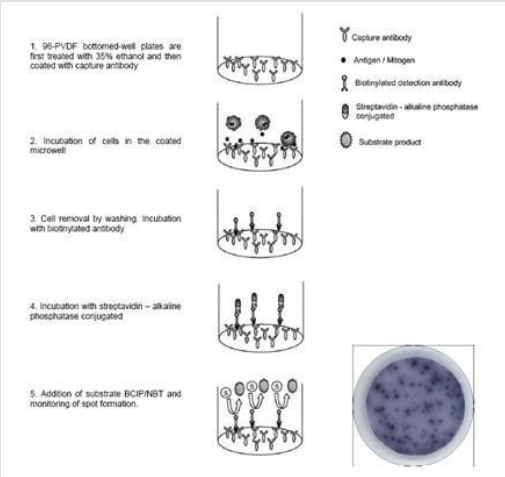
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab105242 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.

Images



ELISPOT - IL-17F Human ELISpot Assay Kit (ab105242)

Figure 1: principle of assay

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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