

Human IL-17 ELISPOT Set ab83712

1 References

Overview

Product name	Human IL-17 ELISPOT Set
Sample type	Suspension cells
Assay type	Sandwich (qualitative)
Assay duration	Multiple steps standard assay
Species reactivity	Reacts with: Human
Product overview	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. The 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 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 human IL-17A.

Tested applications	Suitable for: ELISpot
Platform	Reagents

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-17 Biotinylated detection antibody	1 vial	1 vial
Human IL-17 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

Relevance

IL-17, also known as CTLA8, is a T cell derived hematopoietic cytokine. It was originally cloned from a T cell hybridoma produced by fusion of a mouse cytotoxic T cell clone and a rat T lymphoma. IL-17 exhibits multiple biological activities on a variety of cells including: the induction of IL-6, IL-8 and GCSF production in fibroblasts; the enhancement of surface expression of ICAM 1 in fibroblasts; activation of NF kappaB and costimulation of T cell proliferation. IL-17 is an approximately 16 kDa polypeptide of 136 amino acids. The precursor form of IL-17 consists of 155 amino acids. To generate the mature IL-17 (136 amino acids), the precursor cleaves a 19 amino acid signal peptide. Human IL-17 shows approximately 62.5% amino acid homology to mouse IL-17 and 58% amino acid homology to rat IL-17.

Cellular localization

Secreted

Applications**The Abpromise guarantee**Our **Abpromise guarantee** covers the use of ab83712 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.

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