

# Human Perforin ELISPOT Kit (with un-coated plates) ab46620

### Overview

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<b>Product name</b>	Human Perforin ELISPOT Kit (with un-coated plates)
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Suspension cells
<b>Assay type</b>	Sandwich (qualitative)
<b>Assay duration</b>	Multiple steps standard assay
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Product overview</b>	<b>Intended use</b>

This Human Perforin ELISPOT Kit (with un-coated plates) is designed to enumerate Perforin producing cells in a single cell suspension. This method has the advantage of requiring a minimum of in-vitro manipulations allowing perforin production analysis as close as possible to in-vivo conditions in a highly specific way. This technique is designed to determine the frequency of perforin 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.

Abcam 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 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 Perforin.

<b>Tested applications</b>	<b>Suitable for:</b> ELISpot
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**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
Bovine Serum Albumin	1 x 1g	2 x 1g
Human Perforin Capture Antibody	1 x 500µl	2 x 500µl
Perforin Biotinylated Detection Antibody	1 vial	1 vial
Ready-to-use BCIP/NBT substrate buffer	1 x 50ml	2 x 50ml
Streptavidin - Alkaline Phosphatase conjugated	1 x 50µl	2 x 50µl

**Relevance** Perforin has structural and functional similarities to complement component 9 (C9). Like C9, this protein creates transmembrane tubules and is capable of lysing non-specifically a variety of target cells. Perforin is one of the main cytolytic proteins of cytolytic granules, and it is known to be a key effector molecule for T-cell- and natural killer-cell-mediated cytotoxicity. Defects in this gene cause familial hemophagocytic lymphohistiocytosis type 2 (HPLH2), a rare and lethal autosomal recessive disorder of early childhood.

**Cellular localization** Cell Membrane and Cytoplasmic

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab46620 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.

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

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