

DIACLONE IMMUNOLOGY PRODUCTS

HUMAN IFN- γ ELISpot KIT

(pre-coated plates, enzymatic)

Diaclone ELISpot (Enzyme Linked Immunospot Assay) 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. Diaclone ELISpot assays can be used as important tools in a number of research areas including vaccine development, oncology, autoimmunity, HIV and transplant rejection.

Different populations of T-cells secrete differing patterns of cytokines that ultimately lead to different immune responses. IFN- γ production is a key function of Th-1, CD8+ CTLs and also NK cells. It is a cytokine critical for cell mediated immunity against viral and intracellular bacterial infections and is involved in the inflammatory response following secretion via macrophage activation and stimulation of antibody secretion. IFN- γ is the hallmark effector cytokine of Th1 and therefore is an excellent marker for identifying a host response to intracellular pathogens.

SPECIFICATION

Catalogue Number	1x96 wells 856.051.001PC 5x96 wells 856.051.005PC
Specificity	Recognizes natural human IFN- γ
Incubation Time	180 min following cell stimulation
Sample Size	100 μ l
Cross Reactivity	No cross reactivity with other human cytokines tested Cross reactivity with simian IFN- γ

RELATED PRODUCTS

Product	Format	Catalogue Number
Human IFN- γ ELISpot PVDF – Enzymatic (available without plates, with sterile or non sterile plates)	5x96 well	856.051.005
	10x96 well	856.051.010
	15x96 well	856.051.015
	20x96 well	856.051.020
Human IFN- γ ELISpot Matched Antibody Pair	10x96 well	869.060.010

(1x96 well demo kits available on request)

INTENDED USE

Diaclone ELISpot uses sandwich immuno-enzyme technology to provide an important tool for the quantitative and qualitative analysis of IFN- γ . At the point of secretion IFN- γ is bound by the capture antibodies avoiding diffusion into the supernatant, protease degradation and the possibility of binding to membrane receptors. This provides an accurate evaluation of IFN- γ production from stimulated cells.

HIGH PERFORMANCE

- Highly Sensitive assay can allow the detection of a single cell out of 100,000
- Fast procedure of less than 180 mins following cell stimulation
- Accuracy and reliability are guaranteed via robust validation
- Reagents generate well focused, defined and easy to analyse 'spots'
- No cross reactivity with other human cytokines

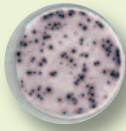


DIACLONE IMMUNOLOGY PRODUCTS
FLEXIBILITY

- Pre-coated plates supplied for easy analysis and increased throughput
- Kits available in a number of sizes to allow expansion for testing large numbers of replicates

ELISPOT WELL IMAGE

Each spot within an ELISpot well identifies a single cell secreting cytokines. 'True' spots have dense centres with a light outer circle as a result of cytokine diffusion, the colour intensity and spot size is dependent on the volume of cytokine being secreted.


PRODUCT RANGE

With over 20 years experience and extensive expertise we are committed to providing excellence in Monoclonal Antibody and Immunoassay development

Other products available:



Monoclonal Antibodies



ELISA



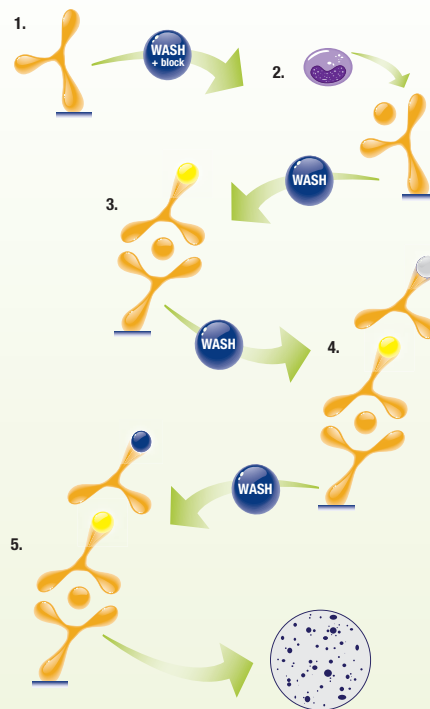
Diaclone DIAplex






With the benefits of specific, sensitive, accurate and reliable measurement of cytokines and soluble molecules from a very low ratio of cells combined with the diversity of the product range, Diaclone ELISpot is the clear choice to...

Fast Track Your Research...

ANALYTICAL PROCEDURE

- 1: A capture antibody highly specific to IFN- γ is coated to each well of a PVDF bottomed 96 well microtitre plate following ethanol sensitisation. (Only required for un-coated plates).
- 2: Cell suspension and stimulant added to coated and blocked microtitre plate and the plate incubated at 37°C in a CO₂ incubator allowing the specific antibodies to bind any IFN- γ produced.
- 3: Biotinylated anti-IFN- γ detection antibodies are then added which bind to the previously captured cytokines.
- 4: Conjugated enzyme added binding to the detection antibodies.
- 5: BCIP/NBT buffer applied to the wells resulting in coloured spots which can be quantified using appropriate analysis software or manually using microscopes.


Key

-  Antibody
  Analyte
  Cells and stimulant added
  Biotinylated/ITC tag
  Conjugated enzyme
  Colour substrate reaction