

ELISpot Human IFN- γ

Product Details

Application

The Human IFN- γ Enzyme-Linked ImmunoSpot (ELISpot) assay is a highly sensitive method used to detect and quantify individual cells that secrete specific cytokines or other soluble molecules. This assay is utilized in immunology to monitor cellular immune responses at the single-cell level and reliably detects and measures human IFN- γ secretion by stimulated effector cells.

Description

IFN- γ is a dimerized soluble cytokine involved in both innate and adaptive immunity. It is produced primarily by Natural Killer cells during the innate immune response, and by CD4⁺ Th1 cells and CD8⁺ T cells during antigen-specific immune responses.

As a proinflammatory cytokine, IFN- γ plays a significant role in activating macrophages and endothelial cells, enhancing their pathogen-killing capabilities. It regulates immune responses by modulating the activity of antigen-presenting cells and T cells. IFN- γ is critical for both innate and adaptive immunity against viral, bacterial, and protozoal infections due to its ability to inhibit viral replication directly and through its immunostimulatory and immunomodulatory effects. One of its key functions is the induction of MHC class II molecule expression, which improves antigen presentation and immune recognition.

Product Specifications

Product	ELISpot Human IFN- γ kit
Application	ELISpot
Analyte	IFN- γ
Reactivity	Human
Specificity	Human IFN- γ .
Storage	Store plates and reagents between 2 and 8°C
Shelf life	18 months from date of receipt.

Kit content

Peptide pools	No peptide pool included – plate and reagents only
Plate	ELISpot plate precoated with IFN- γ capture antibody
Detection mAb	Biotinylated recombinant IFN- γ antibody
Enzyme conjugate	Streptavidin-ALP (Alkaline Phosphatase)

Substrate	BCIP/NBT Ready-to-use solution
Blocking agent	Bovine Serum Albumin (BSA)