



Biomarker Qualification Sheet

Qualified Imperacer® Assay for the Quantification of Interferon gamma (IFN- γ) in Human Plasma

Interferon gamma (IFN- γ):

Interferon-gamma (IFN- γ), the only member of type II class interferons, is a soluble cytokine with subunits of 146 amino acids. Binding to the IFN- γ receptor 1 leads to activation of the JAK-STAT pathway, while binding to glycosaminoglycan heparin sulfate (HS) at the cell surface inhibits its biological activity.

Secreted by T helper cells (Th1), cytotoxic T cells, macrophages and natural killer cells, IFN- γ play a key role in host defense by promoting the development and activation of Th1 cells, chemo-attraction and activation of monocytes and macrophages, upregulation of antigen presentation molecules, and immunoglobulin class switching in B cells.

IFN- γ is especially released under inflammation conditions, where it promotes regulatory T cell development as an anti-inflammatory mediator. It also exhibits antiviral, antiproliferative, and apoptotic effects. Thus, it is an attractive drug target for immuno-regulatory diseases.

Table 1: Assay setup

Analyte:	Interferon gamma (IFN- γ)
Platform:	Imperacer® (Immuno-PCR)
Matrix:	Human plasma
Status:	Qualified

Table 2: Assay details

Lower limit of quantification:	0.03 pg/ml
Upper limit of quantification:	153,36 pg/ml
Assay range:	0.03 – 153,36 pg/ml
Minimum required dilution:	1:5.8
Minimum sample volume:	12 μ l