## Recombinant Rat Interferon-g (rRa IFN-g)

Catalog No: #74606



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Product Name	Recombinant Rat Interferon-g (rRa IFN-g)
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	> 97 % by SDS-PAGE and HPLC analyses.
Species Reactivity	Rt
Target Name	rr IFN-g
Accession No.	accession:P01581 GeneID:25712
Uniprot	P01581
GeneID	25712;
Calculated MW	Approximately 15.5 kDa, a sing
SDS-PAGE MW	Sterile Filtered White lyophil
Target Sequence	QGTLIESLES LKNYFNSSSM DAMEGKSLLL DIWRNWQKDG NTKILESQII SFYLRLFEVL KDNQAISNNI
	SVIESHLITN FFSNSKAKKD AFMSIAKFEV NNPQIQHKAV NELIRVIHQL SPESSLRKRK RSRC
Formulation	Lyophilized from a 0.2 $\mu m$ filtered concentrated solution in 1 $\mu$ PBS, pH 7.4, 1 mM DTT, 5 % Trehalose and
	0.05 % Tween-80.
Storage	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably
	desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability,
	apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated
	freeze thaw cycles.

## Background

Interferon-gamma (IFN- $\gamma$ ), also known as Type II interferon or immune interferon, is a cytokine produced primarily by T-lymphocytes and natural killer cells. The protein shares no significant homology with IFN- $\beta$  or the various IFN- $\alpha$  family proteins. Mature IFN- $\gamma$  exists as noncovalently-linked homodimers. It shares high sequence indentity with mouse IFN- $\gamma$  (86 %). IFN- $\gamma$  was originally characterized based on its antiviral activities. The protein also exerts antiproliferative, immunoregulatory and proinflammatory activities and is thus important in host defense mechanisms. IFN- $\gamma$  induces the production of cytokines, upregulates the expression of class I and II MHC antigens, Fc receptor and leukocyte adhesion molecules. It modulates macrophage effector functions, influences isotype switching and potentiates the secretion of immunoglobulins by B cells. Additionally, IFN- $\gamma$  augments TH1 cell expansion and may be required for TH1 cell differentiation.

## References

- 1. Wang H, Ruan Z, Wang Y, et al. 2008. Mol Immunol, 45: 1548-56.
- 2. Kopinski P, Przybylski G, Jarzemska A, et al. 2007. Pol Merkur Lekarski, 23: 15-21.
- 3. Pennino D, Bhavsar PK, Effner R, et al. 2012. J Allergy Clin Immunol,
- 4. Hibi M, Hachimura S, Ise W, et al. 2003. Cytotechnology, 43: 49-55.

Note: This product is for in vitro research use only