

Recombinant Canine Interferon-gamma (Canine IFN- γ)

Product Information

Product Name	Cat#	Size
Recombinant Canine Interferon-gamma (Canine IFN- γ)	91215ES60	100 μ g
	91215ES76	500 μ g

Product Description

IFN gamma, also known as IFNG, is a secreted protein that belongs to the type II interferon family. IFN gamma is produced predominantly by natural killer and natural killer T cells as part of the innate immune response, and by CD4 and CD8 cytotoxic T lymphocyte effector T cells once antigen-specific immunity develops. IFN gamma has antiviral, immunoregulatory, and anti-tumor properties. IFNG, in addition to having antiviral activity, has important immunoregulatory functions, it is a potent activator of macrophages and has antiproliferative effects on transformed cells and it can potentiate the antiviral and antitumor effects of the type I interferons. The IFNG monomer consists of a core of six α -helices and an extended unfolded sequence in the C-terminal region. IFN gamma is critical for innate and adaptive immunity against viral and intracellular bacterial infections and tumor control. Aberrant IFN gamma expression is associated with some autoinflammatory and autoimmune diseases. The importance of IFN gamma in the immune system stems in part from its ability to inhibit viral replication directly, and most importantly from its immunostimulatory and immunomodulatory effects. IFNG also promotes NK cell activity.

Product Properties

Synonyms	Interferon gamma; IFN-gamma
Accession	P42161
GeneID	403801
Source	E.coli-derived canine Interferon-gamma protein, Gln24-Lys166
Molecular Weight	Approximately 16.9 kDa.
AA Sequence	QAMFFKEIEN LKEYFNASNP DVSDGGSLFV DILKKWREES DKTHIQSQIV SFYLKLFDFNFKDNQIIQRSM DTIKEDMLGK FLNSSTSKRE DFLKLIQIPV NDLQVQRKAI NELIKVMNDLSPRSNLRKRK RSQNLFRGRR ASK
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by an anti-viral assay using A-72 canine fibroma cells infected with vesicular stomatitis virus (VSV) is less than 2.0 ng/ml, corresponding to a specific activity of > 5.0 \times 10 ⁵ IU/mg.
Endotoxin	< 0.1 EU per 1 μ g of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 25 mM Sodium Succinate, pH 5.0, 60 mM NaCl, with 0.1 % Tween-80.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at \leq -20 $^{\circ}$ C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!