



Recombinant Canine IFN-gamma Protein (DAGC268)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Species	Canine
Purity	>97% by SDS-PAGE and HPLC analyses
Conjugate	unconjugated
Applications	SDS-PAGE, ELISA
Molecular Weight	16.9 kDa (143 amino acids)
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by an antiviral 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.
Format	Lyophilized
Size	20 µg, 100 µg, 250 µg, 500 µg, 1 mg
Preservative	None
Storage	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.

BACKGROUND

Introduction	Interferon gamma is the only type II interferon and binds to the heterodimeric IFNGR that consists of two chains, IFNGR1 and IFNGR2. This interaction activates the JAK-STAT pathway. IFNG is produced primarily by T-lymphocytes and natural killer (NK) cells. It is critical for innate and adaptive immunity against viral and intracellular bacterial infections. This is due partly to its ability to inhibit viral replication directly, but also due to its immunostimulatory and immunomodulatory effects. IFNG induces the production of cytokines and upregulates the expression of class I and II MHC antigens, Fc receptors, and leukocyte adhesion molecules. It modulates macrophage effector functions, influences isotype switching, and potentiates the secretion of immunoglobulins by B cells. Additionally, IFNG augments TH1 cell expansion and may be required for TH1 cell differentiation.
Keywords	Interferon-gamma; INF-gamma; IFN-γ; Canine INF-gamma; Canine Interferon-gamma; Canine IFN-γ; IFNG; Canine IFNG