

## Recombinant Full length Canine interferon gamma Protein, Tag Free

Cat. No. IFNG-33CFL    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Product Overview</b> | The Canine IFN gamma recombinant protein was produced in yeast and therefore does not have endotoxin, is naturally folded, and post-translationally modified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Canine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | 1-166aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | <p>Interferon gamma (IFN<math>\gamma</math>) is a dimerized soluble cytokine that is the only member of the type II class of interferons. This interferon was originally called macrophage-activating factor, a term now used to describe a larger family of proteins to which IFN-gamma belongs. IFN-gamma, or type II interferon, is a cytokine that is critical for innate and adaptive immunity against viral and intracellular bacterial infections and for tumor control. Aberrant IFN-gamma expression is associated with a number of autoinflammatory and autoimmune diseases. The importance of IFN-gamma in the immune system stems in part from its ability to inhibit viral replication directly, but, most important, derives from its immunostimulatory and immunomodulatory effects. IFN-gamma is produced predominantly by natural killer (NK) and natural killer T (NKT) cells as part of the innate immune response, and by CD4 and CD8 cytotoxic T lymphocyte (CTL) effector T cells once antigen-specific immunity develops.</p> |
| <b>Tag</b>              | Non                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                       |                                                                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 16.7 kDa                                                                                                                                                                                                                                   |
| <b>AA Sequence</b>    | QAMFFKEIENLKEYFNASNPDVSDGGSLFVDILKKWREESDKTIISQIVSFYKLFDN<br>FKDNQIIQRSMPTIKEDMLGKFLNSSTSKREDFLKLIIQIPVNDLQVQRKAINELIKVMN<br>DLSPRSNLRKRKRSQNLFRGRRASK(143)                                                                                |
| <b>Applications</b>   | The Canine IFN gamma endotoxin-free recombinant protein can be used in cell culture, as an IFN gamma ELISA Standard, and as a Western Blot Control.                                                                                        |
| <b>References</b>     | 1. TNF- $\alpha$ and INF- $\gamma$ primed canine stem cell-derived extracellular vesicles alleviate experimental murine colitis. An JH, Li Q, Bhang DH, Song WJ, Youn HY. Sci Rep. 2020 Feb 7;10(1):2115. doi: 10.1038/s41598-020-58909-4. |

## GENE INFORMATION

|                        |                                                               |
|------------------------|---------------------------------------------------------------|
| <b>Gene Name</b>       | IFNG interferon gamma [ <i>Canis lupus familiaris</i> (dog) ] |
| <b>Official Symbol</b> | IFNG                                                          |
| <b>Synonyms</b>        | IFNG; interferon gamma; IFN-G; IFN-gamma                      |
| <b>Gene ID</b>         | 403801                                                        |
| <b>mRNA Refseq</b>     | NM_001003174                                                  |
| <b>Protein Refseq</b>  | NP_001003174                                                  |
| <b>UniProt ID</b>      | P42161                                                        |

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