

IFNA1

Recombinant Mouse Interferon alpha 1

Catalog No. CRM149 **Quantity:** 1x10E5 units

Alternate Names: IFN-alpha 1, IFL, IFN

Description: Recombinant mouse Interferon alpha 1. Most mammalian species have multiple IFN-alpha subtypes. Although the reasons for these multiple subtypes are not fully known, there are clear cell type and temporal differences in their expression. Mouse IFN-alpha 1 was originally cloned from a genomic library. A recent study has established a nomenclature for the mouse IFN-alpha subtypes and determined relative activities of the subtypes with protein quantification by phosphorimaging of metabolically labeled protein. It was determined that the Mouse IFN-alpha 1 protein had average specific activity when compared to the other subtypes. Expression of this subtype has been seen in spleen embryonic fibroblasts in some studies, but not in others. Expression has also been observed in brain, and in L929 cells challenged with a variety of viruses. It has been suggested that expression of this IFN may be regulated by Oct-1 and that it is IRF-7 dependent. This subtype has been extensively studied either in transgenic mice or by delivery as an expression construct. When delivered as an expression construct, Mouse IFN-alpha 1 reduced CMV intramuscular infection significantly better than Mouse IFN-alpha 4 or 9. Mouse IFN-alpha 1 is an interferon with broad tissue expression which may be highly effective against certain viruses such as CMV and HSV.

Concentration: $\geq 1 \times 10^6$ units/ml

Protein Accession No: AY225950

Source: *E. coli*

Molecular Weight: 19.1 kDa

Formulation: Liquid in PBS containing 0.1% BSA

Purity: > 95%

Endotoxin Level: < 1 EU/ μ g IFNA1

Biological Activity: Interferon was titrated with the use of the cytopathic effect inhibition assay with EMCV used as the challenge rather than VSV. The activity was determined relative to a lab standard of Mouse IFN-alpha which was calibrated to the NIH Mouse IFN-alpha standard. The EC_{50} for IFN is ~ 5 U/ml.

Specific Activity: 7.52×10^7 units/mg

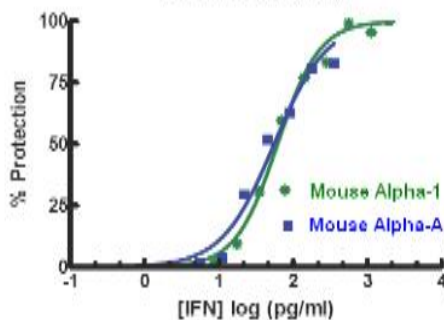


Storage & Stability:

Store in working aliquots at -80°C. Further dilutions of the product should be in buffers containing protein such as 0.1% BSA. **Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed. Avoid repeated freeze-thaw cycles.**

The activity of Mouse Alpha-A and Mouse Alpha-1 was compared in an L929/EMCV CPE assay. The EC₅₀ for Mouse Alpha-A in this experiment was 56 pg/ml while the EC₅₀ for Mouse Alpha-1 was 62 pg/ml. This similarity was confirmed for several batches of Mouse Alpha-1. Results are representative and may vary depending upon experimental conditions.

Comparison of Mouse Alpha-A and Mouse Alpha-1 Antiviral Activity



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