Datasheet

Cat. No. PM2018

# Recombinant Mouse IFN-alpha 2/IFNA2, Tag Free

## Information

| | |
|---|---|
| Accession # | P01573 |
| Alternate Names | alpha-2a interferon; Ifa2; IFNA; IFNA2; IFNA2a; IFNA2b; IFNA2c; IFNAA; IFNalpha 2; IFN-alpha 2 |
| Source | Human embryonic kidney cell, HEK293-derived mouse IFN-alpha 2/IFNA2 protein |
| Protein sequence | Cys24-Glu190 |
| M.Wt | 19.4 kDa |
| Appearance | Solution protein |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles.<br>- 12 months from date of receipt, -20 to -70°C as supplied. |
| Concentration | 0. 2 mg/mL |
| Formulation | Dissolved in sterile PBS buffer. |
| Reconstitution | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers. |
| Biological Activity | The EC50 for this effect is 0.05-0.2 ng/mL. Measured in an anti-viral assay using L-929 mouse fibroblast cells infected with encephalomyocarditis (EMC) virus. |
| Shipping Condition | Shipping with dry ice. |
| Handling | Centrifuge the vial prior to opening. |
| Usage | For Research Use Only! Not to be used in humans. |

## Quality Control

| | |
|---|---|
| Purity | > 95%, determined by SDS-PAGE. |
| Endotoxin | <0.010 EU per 1 ug of the protein by the LAL method. |

## Description

Interferon-alpha 2 (IFN alpha -2) is one of 14 subtypes within the IFN-alpha class of Type I Interferons [1]. The members of the IFN-alpha class, also known as alpha leukocyte interferons, encompass a group of distinct but closely related proteins which share approximately 80% amino acid (aa) sequence identity and have a similar globular structure composed of five alpha-helices [1, 3, 4]. IFN-alpha class members signal through a common cell surface receptor complex composed of IFN-alpha R2 and IFN-alpha R1 subunits [3]. As the first highly active IFN to be cloned and produced, IFN alpha -2 has become the prototypic IFN for academic and pharmaceutical research [2]. The mature extracellular domain (ECD) of mouse IFN alpha -2 shares 60% and 83% aa sequence identity with human and rat, respectively. Murine IFN-alpha 2 can eliminate cardiac viral load and protect cardiomyocytes from injury in

animals infected with coxsackievirus B3 (CVB3) [5]. IFN alpha -2 derived mutants with reduced IFNR2 binding inhibited HIV replication and mutants with more IFNAR1 binding potentiated antiviral activity [6].

## Reference


[1]. Pestka, S. (2007) J Biol Chem. 282:20047.

[2]. Paul, F. et al. (2015) Gene. 567(2):132.

[3]. Oritani, K. et al. (2001). Cytokine & Growth Factor Reviews, 12:337.

[4]. Pesch, V. et al. (2004). Journal of Virology, 78:8219.

[5]. Wang, Y.X. et al. (2007) Am J Physiol Heart Circ Physiol. 293:H69.

[6]. Schlaepfer, E. et al. (2019) Am Soc for Microbiology 4:e00637.