

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived mouse IFNAA protein
Cys24-Glu190
Accession # Q61718

N-terminal Sequence Analysis Cys24

Predicted Molecular Mass 19.3 kDa

SPECIFICATIONS

SDS-PAGE 16-21 kDa, under reducing conditions

Activity Measured in an anti-viral assay using L-929 mouse fibroblast cells infected with encephalomyocarditis (EMC) virus. Vogel, S.N. *et al.* (1982) Infect. Immunol. **38**:681.
The ED₅₀ for this effect is <15 pg/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in PBS.

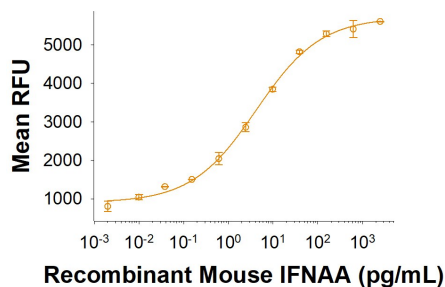
Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

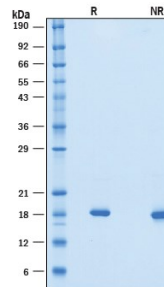
DATA

Bioactivity



Recombinant Mouse IFNAA (Catalog # 10150-IF) suppresses viral activity on L-929 mouse fibroblast cells infected with encephalomyocarditis (EMC) virus. The ED₅₀ for this effect is <15 pg/mL.

SDS-PAGE



2 µg/lane of Recombinant Mouse IFNAA (Catalog # 10150-IF) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 16-21 kDa.

BACKGROUND

Interferon-alpha A (IFNAA), also referred to as interferon-alpha 15 (IFNA15), is one of 14 subtypes within the IFN-alpha family (1). The members of the IFN-alpha family, 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). IFN-alpha family members signal through a common set of cell surface receptor complex composed of IFNAR2 and IFNAR1 subunits (2). The mature extracellular domain (ECD) of mouse IFNAA is 167 aa and shares 93% and 92% aa sequence identity with mouse and rat, respectively. Most of the members of the murine IFN-alpha family are N-glycosylated, however IFNAA is one of 4 members that lacks a N-glycosylation site (3). IFNAA is one of the many interferon alpha subtypes belonging to the Type I leukocyte IFN family. The Type I IFN family has antiviral, anti-proliferative and natural killer cell activities.

MANUFACTURING SPECIFICATIONS

1. Pestka, S. (2007) J Biol Chem. **282**:20047.
2. Oritani, K. *et al.* (2001). Cytokine & Growth Factor Reviews, **12**:337.
3. Pesch, V. *et al.* (2004). Journal of Virology, **78**:8219.