

## DESCRIPTION

**Source** Human embryonic kidney cell, HEK293-derived mouse IFN-alpha 12 protein  
Cys24-Glu189  
Accession # Q80SS5.1

**N-terminal Sequence Analysis** Cys24

**Predicted Molecular Mass** 19.2 kDa

## SPECIFICATIONS

**SDS-PAGE** 18-25 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 ED<sub>50</sub> for this effect is 10-100 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. See Certificate of Analysis for details.

## PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 100 µg/mL in PBS.

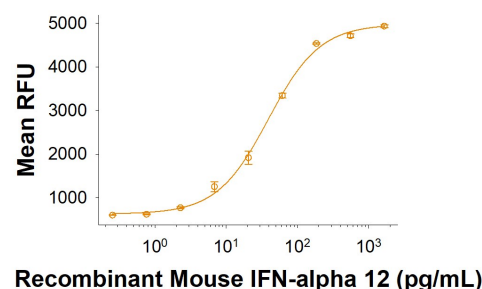
**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

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

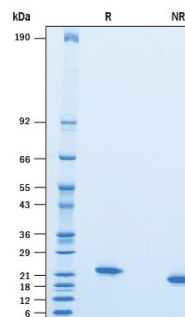
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

## DATA

### Bioactivity



### SDS-PAGE



2 µg/lane of Recombinant Mouse IFN-alpha 12 (Catalog # 10370-IF) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 18-25 kDa.

## BACKGROUND

Interferon-alpha 12 (IFNα-12) is a member of the type I interferon-alpha (IFN-α) family (1). The members of the IFN-α 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-α family members signal through a common set of cell surface receptor complex composed of IFN-αR2 and IFN-αR1 subunits (2). The mature extracellular domain (ECD) of mouse IFNα-12 is 166 aa. While IFNα-12 does not exist in humans, it closely resembles other murine members of the IFN-α family, such as sharing 88% and 86% sequence identity with IFNα-15 and IFNα-11 respectively. Murine IFN-α12 differs from other members of the IFN-α family by its anti-proliferative function and in the inability of its expression to be regulated by viral infection (5).

### References:

1. Moulton, V. R. (2017) Trends Mol Med. **23**:615.
2. Oritani, K. *et al.* (2001) Cytokine & Growth Factor Reviews. **12**:337.
3. Pesch, V. *et al.* (2004). Journal of Virology. **78**:8219.
4. Hardy, M. P. *et al.* (2004). Genomics, **84**:331.
5. Tsang, S. L. *et al.* (2007). Cytokine, **37**:101.