

DESCRIPTION

Source *E. coli*-derived
Leu22-Pro192, with N-terminal Met and C-terminal 6-His tag
Accession # Q80ZF2

N-terminal Sequence Analysis Met

Predicted Molecular Mass 21 kDa

SPECIFICATIONS

SDS-PAGE 20 kDa, 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 0.2-1 ng/mL.

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

Purity >75%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in Citric Acid and CHAPS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

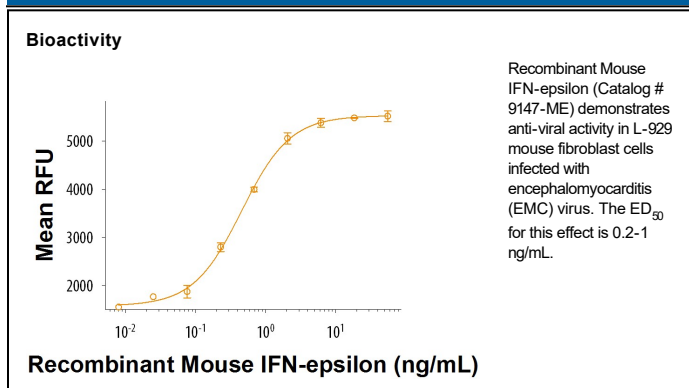
Reconstitution Reconstitute at 100 µg/mL in water.

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



BACKGROUND

Interferon-epsilon (IFN-ε) is a secreted, approximately 18 kDa member of the type I interferon family of molecules (1). Mature mouse IFN-ε shares 55% amino acid sequence identity with human and rat IFN-ε, respectively. IFN-ε signals through IFN-α/β R1 and IFN-α/β R2 and contributes to TNF-α induced signaling (2, 3). It is constitutively expressed in epithelial cells lining the lung, intestines, testes, and female reproductive tract, and it is further up-regulated in the uterus by estrogen (2-6). IFN-ε provides mucosal barrier protection against the pathogens Chlamidia and Herpes simplex virus 2 (2). It induces B cell activation and the attraction of CD8⁺ T cells to sites of virus infection (5, 7).

References:

1. Wijesundara, D.K. *et al.* (2014) *Front. Immunol.* **5**:412.
2. Fung, K.Y. *et al.* (2013) *Science* **339**:1088.
3. Matsumiya, T. *et al.* (2007) *J. Immunol.* **179**:4542.
4. Demers, A. *et al.* (2014) *J. Leukoc. Biol.* **96**:1101.
5. Xi, Y. *et al.* (2012) *Mucosal Immunol.* **5**:610.
6. Hermant, P. *et al.* (2013) *PLoS One* **8**:e71320.
7. Day, S.L. *et al.* (2008) *J. Immunol.* **180**:7158.