

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 typically 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 See Certificate of Analysis for details.

PREPARATION AND STORAGE

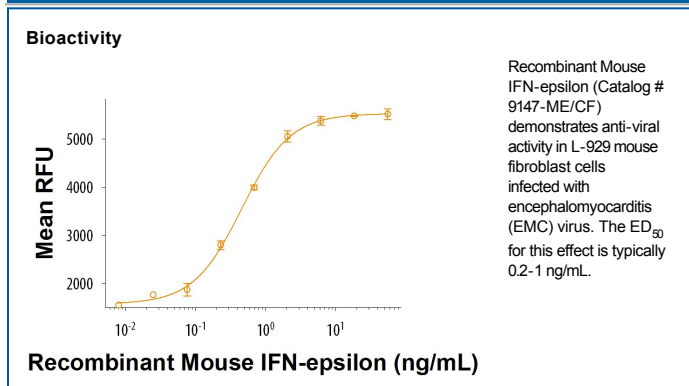
Reconstitution Reconstitute at 100 µg/mL in water.

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 upregulated 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.