

DESCRIPTION

Source *Spodoptera frugiperda*, Sf 21 (baculovirus)-derived
Met23-Ser335
Accession # P43432.1

N-terminal Sequence Analysis Met23

Structure / Form Disulfide-linked homodimer

Predicted Molecular Mass 35.8 kDa (monomer)

SPECIFICATIONS

Activity Measured by its ability to inhibit the IL-12 dependent proliferation of mouse splenocytes activated with PHA and IL-2. The ED₅₀ for this effect is 1-3 ng/mL in the presence of 0.3 ng/mL of mouse IL-12.

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

Purity >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

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 sterile 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.

BACKGROUND

Interleukin 12, also known as natural killer cell stimulatory factor (NKSF) or cytotoxic lymphocyte maturation factor (CLMF), is a pleiotropic cytokine originally identified in the medium of activated human B lymphoblastoid cell lines. IL-12 has multiple effects on T cells and NK cells and is a key mediator in the development of Th1 cells.

IL-12 is a heterodimeric cytokine containing two disulfide-linked subunits, p35 and p40. Human and mouse IL-12 share 70% and 60% amino acid sequence identity in their p40 and p35 subunits, respectively. Although mouse IL-12 is active on human or mouse IL-12 responsive cells, human IL-12 is not active on mouse cells.

The disulfide-linked mouse p40 homodimer can bind to IL-12 receptors and is an antagonist of IL-12 activities *in vitro*. The mouse p40 monomer is at least ten times less active than the homodimer as an IL-12 antagonist. The existence and the physiological role of mouse p40 homodimer *in vivo* remains to be determined.