

Recombinant Ovine Interferon-tau

#R00345

Size: 10 µg/100 µg/500 µg

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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

IFN-τ is a new class of type I IFN that is secreted by the trophoblast and is the signal for maternal recognition of pregnancy in sheep. IFN-τ has potent immunosuppressive and antiviral activities similar to other type I IFN but is less cytotoxic than IFN-α/β. The current investigation concerns the effect of recombinant ovine IFN-tau (rOvIFN-τ) on the modulation of MHC class I and II expression on cloned mouse cerebrovascular endothelial (CVE) cells. IFN-tau induced tyrosine phosphorylation of Stat1 and up regulated the expression of MHC class I on CVE. One proposed action by which type I IFN reduce the relapse rate in MS is via interference with IFN-γ-induced MHC class II expression. IFN-τ was shown to down regulate IFN-γ-induced MHC class II expression on CVE and, hence, may be of potential therapeutic value in down regulating inflammation in the central nervous system (CNS). IFN-τ did not upregulate the expression of MHC

class II on CVE. IFN-τ also inhibited the replication of Theiler's virus in CVE.

AA Sequence

CYLSRKLM LDAREN LKLLDR MNRLSP HSC LQDR KDF
GLPQEMVEGDQLQKDQAFPVLYEMLQQSFNLFYTEH
SSAAWDTTLLEQLCTGLQQQLDHLDTCRGQVMGEE
DSELGNMDPIVTVKKYFQGIYDYLQEKGYSDCAWEIV
RVEMMRALT VSTTLQKRLTKMGGDLNSP

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Accession	P56828
GeneID	100144750
Species	Ovine
Source	Yeast
Molecular Weight	Approximately 19.9 kDa, a single glycosylated polypeptide chain containing 172 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to IFN-alpha. The specific activity determined by a viral resistance assay is no less than 1.0×10^7 IU/mg.
Physical Appearance	Sterile Filtered White Lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in

PBS, pH 7.4.

Endotoxin

Less than 0.1 EU/μg of rOvIFN-τ
as determined by LAL method.
