



Product Datasheet

Product Name	Interferon-Tau Ovine Recombinant
Cata No	CB500279
Source	<i>Escherichia Coli.</i>
Synonyms	IFN-tau1, Trophoblast protein 1, TP-1, Trophoblastin, Antiluteolysin, Trophoblast antiluteolytic protein, IFN-tau, Interferon tau-1.

Description

IFN-tau is also known as TP-1 (trophoblast protein-1) 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- tau has potent immunosuppressive and antiviral activities similar to other type I IFN but is less cytotoxic than IFN-alpha and IFN-beta. The current investigation concerns the effect of recombinant ovine IFN- tau (rOIFN- tau) 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 upregulated the expression of MHC class I on CVE. One proposed action by which type I IFN reduces the relapse rate in MS is via interference with IFN- γ -induced MHC class II expression. IFN-tau was shown to downregulate IFN- γ -induced MHC class II expression on CVE and, hence, may be of potential therapeutic value in downregulating inflammation in the central nervous system (CNS). IFN- tau did not upregulate the expression of MHC class II on CVE. IFN- tau also inhibited the replication of Theiler's virus in CVE.

Interferon-Tau Ovine Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 172 amino acids and having a molecular mass of 19914.7 Dalton.

The IFN-Tau is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

The specific activity as determined in a viral resistance assay using bovine kidney MDBK cells was found to be 1×10^7 IU/mg.

Purity

Greater than 95.0% as determined by both:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

Lyophilized from (1mg/ml) solution containing PBS pH-7.4.

Stability

Lyophilized Interferon-Tau although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFN-Tau should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Cys-Tyr-Leu-Ser-Arg.

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