

32-1332: oIFN tau Recombinant Protein

Alternative Name : IFN-tau1, Trophoblast protein 1, TP-1, Trophoblastin, Antiluteolysin, Trophoblast antiluteolytic protein, IFN-tau, Interferon tau-1.

Description

Source : Escherichia Coli. 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 τ is purified by proprietary chromatographic techniques. IFN τ 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 τ has potent immunosuppressive and antiviral activities similar to other type I IFN but is less cytotoxic than IFN α and IFN η . The current investigation concerns the effect of recombinant ovine IFN τ (rOIFN τ) on the modulation of MHC class I and II expression on cloned mouse cerebrovascular endothelial (CVE) cells. IFN τ 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-induced MHC class II expression. IFN τ was shown to downregulate IFN-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 τ did not upregulate the expression of MHC class II on CVE. IFN τ also inhibited the replication of Theiler's virus in CVE.

Product Info

Amount : 10 μ g
Purification : Greater than 95.0% as determined by both:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.
Content : Lyophilized from (1mg/ml) solution containing PBS pH-7.4.
Storage condition : 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.
Amino Acid : The sequence of the first five N-terminal amino acids was determined and was found to be Cys-Tyr-Leu-Ser-Arg.

Application Note

It is recommended to reconstitute the lyophilized Interferon Tau in sterile 18M Ω -cm H $_2$ O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions. The specific activity as determined in a viral resistance assay using bovine kidney MDBK cells was found to be 10,000,000IU/mg.

