

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 IFNtau is purified by proprietary chromatographic techniques. IFNtau 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. IFNtau has potent immunosuppressive and antiviral activities similar to other type I IFN but is less cytotoxic than IFNalpha and IFNeta. The current investigation concerns the effect of recombinant ovine IFNtau (rOIFNtau) on the modulation of MHC class I and II expression on cloned mouse cerebrovascular endothelial (CVE) cells. IFNtau 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. IFNtau 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). IFNtau did not upregulate the expression of MHC class II on CVE. IFNtau also inhibited the replication of Theiler's virus in CVE.

Product Info

Amount :	10 µg
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 18MΩ-cm H₂O not less than 100µg/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.

