Recombinant Ovine Interferon-tau

Catalog No.	CS509A	**Quantity:**	2 µg
	CS509B		10 µg
	CS509C		1 mg

Description: IFN-tau 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/beta. The current investigation concerns the effect of recombinant ovine IFN-tau (rOvIFN-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 reduce the relapse rate in MS is via interference with IFN-gamma-induced MHC class II expression. IFN-tau was shown to downregulate IFN-gamma-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.

Recombinant Ovine Interferon-tau is a single non-glycosylated polypeptide chain containing 172 amino acids.

Source: *Pichia pastoris*

Molecular Weight: 19.9 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Purity: >95 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: <1 EU/µg as determined by LAL method.

Biological Activity: Fully biologically active when compared to IFN-alpha.

Specific Activity: The specific activity determined by a viral resistance assay is no less than 1.0 X 10E7 IU/mg.

Amino Acid Sequence: CYLSRKLMLD ARENLKLLDR MNRLSPHSCL QDRKDFGLPQ EMVEGDQLQK DQAFPVLYEM LQQSFNLFYT EHSSAAWDTT LLEQLCTGLQ QQLDHLDTCR GQVMGEEDSE LGNMDPIVTV KKYFQGIYDY LQEKGYSDCA WEIVRVEMMR ALTVSTTLQK RLTKMGGDLN SP

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. This depends upon the particular application employed. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: This lyophilized preparation is stable at 2-8°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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