

Sheep Interferon tau - Purified

Catalog No.:	AR10465PU-L
Quantity:	1 mg
Concentration:	1.0 mg/ml (prior to lyophil.)
Background:	<p>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.</p> <p>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-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.</p>
Uniprot ID:	P56828
NCBI:	NP_001116871.1
GeneID:	100144750
Species:	Sheep
Source:	E. coli
Format:	<p>State: Sterile filtered white lyophilized (freeze-dried) powder</p> <p>Purity: >95.0% as determined by both RP-HPLC and SDS-PAGE analysis.</p> <p>Purification Method: Proprietary chromatographic techniques.</p> <p>Buffer System: Lyophilized from (1mg/ml) solution containing PBS, pH 7.4</p> <p>Reconstitution: Restore in sterile 18MΩ-cm⁻¹ H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.</p>
Description:	<p>Recombinant Ovine Interferon-Tau produced in <i>E.coli</i> is a single, non-glycosylated, polypeptide chain containing 172 amino acids.</p> <p>Protein content: Protein quantitation was carried out by two independent methods:</p> <ol style="list-style-type: none">1. UV spectroscopy at 280 nm using the absorbency value of 1.027 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).2. Analysis by RP-HPLC, using a calibrated solution of IFN-Tau as a Reference Standard. <p>AA Sequence:</p> <p>The sequence of the first five N-terminal amino acids was determined and was found to be <i>Cys-Tyr-Leu-Ser-Arg</i>.</p>

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.

Molecular weight: 19914.7 Da

Storage:

Prior to reconstitution store at 2-8°C for one month or desiccated below -18°C.

Following reconstitution store undiluted at 2-8°C for one month

or (in aliquots) at -20°C for longer.

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

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.