Datasheet

Cat. No. P1389

Recombinant Ovine Interferon-tau

Information

Gene ID	100144750
Accession #	P56828
Alternate Names	
Source	Yeast
M.Wt	Approximately 19.9 kDa, a single glycosylated polypeptide chain containing 172 amino acids.
AA Sequence	CYLSRKLMLD ARENLKLLDR MNRLSPHSCL QDRKDFGLPQ EMVEGDQLQK DQAFPVLYEM LQQSFNLFYT EHSSAAWDTT LLEQLCTGLQ QQLDHLDTCR GQVMGEEDSE LGNMDPIVTV KKYFQGIYDY LQEKGYSDCA WEIVRVEMMR ALTVSTTLQK RLTKMGGDLN SP
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to IFN-alpha. The specific activity determined by a viral resistance assay is no less than 1.0 × 10 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10μg	100μg	500μg
Recombinant Ovine Interferon-tau	10μg	100μg	500μg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles
- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rOvIFN-τ as determined by LAL method.

Description

IFN-τ 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/β. The current investigation concerns the effect of recombinant ovine IFN-tau (rOvIFN-τ) 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 up regulated 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-γ-induced MHC class II expression. IFN-τ was shown to down regulate IFN-γ-induced MHC class II expression on CVE and, hence, may be of potential therapeutic value in down regulating 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.

Reference

1. Clayette P, Martin M, Dereuddre-Bosquet N, et al. 1999. Pathol Biol (Paris), 47: 553-9
2. Tekin S, Ealy AD, Wang SZ, et al. 2000. J Interferon Cytokine Res, 20: 1001-5
3. Tennakoon DK, Smith R, Stewart MD, et al. 2001. J Interferon Cytokine Res, 21: 785-92
4. Ezashi TandRoberts RM. 2004. Endocrinology, 145: 4452-60
5. Asselin E, Lacroix D, Fortier MA. 1997. Mol Cell Endocrinol, 132: 117-26.

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