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IL 17A/F Rat

Interleukin-17A/F Heterodimer Rat Recombinant
CYK0269

Product Overview

Name	IL 17A/F Rat

Description

Interleukin-17A/F Heterodimer Rat Recombinant

Synonyms

IL17A/F, IL17 A/F, IL-17A/F, IL-17 A/F, IL17AF, IL-17 AF, Interleukin-17 A/F, Interleukin-17 AF.

Introduction

Rat IL-17A/F is a glycoprotein which is secreted as a disulfide-linked heterodimer. IL-17A/F consists of two proteins of the IL-17 family, IL-17A and IL17F. Proteins of the 6 homodimeric IL17 family show a cysteine knot motif that contains two disulfide-bonds. Rat IL17A is produced as a 155 a.a precursor that includes a 23 amino acids signal sequence and a 132 amino acid chain that includes an N-linked glycosylation site. Rat IL17F is produced as a 153 amino acid precursor with a 20 amino acid signal sequence and a 133 amino acid region. Similar to IL17A, IL17F also has an N-linked glycosylation site. Both proteins (IL17A & IL17F) share 50% amino acid sequence identity. Human IL17A & IL17F show approximately 60% homology in their amino acid sequence to mouse IL-17A and IL-17F. Interleukin-17A/F and IL17A, IL17F homodimers are manufactured by activted CD4+ T cells, called Th17. IL-23 causes Th17 lymphocytes to manufacture IL-17A/F. IL17RA and IL17RC form a heterodimer for the binding of IL17A and IL17F. IL-17A/F binds IL-17RA. Interleukin-17A/F induces chemokine production and airway neutrophilia with intermediate potency between IL17A (most potent) and IL17F (least potent).

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a concentrated (1mg/ml) solution containing no additives.

Stability

Lyophilized Rat IL-17A/F although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Rat IL-17A/F 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.

Purity

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Greater than 98.0% as determined by HPLC and SDS-PAGE.

Amino acid sequence

IL-17A: MAVLIPQSSV CPNAEANNFL QNVKVNLKVL NSLSSKASSR RPSDYLNRST SPWTLSRNED PDRYPSVIWE AQCRHQRCVN AEGKLDHHMN SVLIQQEILV LKREPEKCPF TFRVEKMLVG VGCTCVSSIV RHAS. IL-17F: MARRNPKVGL SALQKAGNCP PLEDNSVRVD IRIFNQNQGI SVPRDFQNRS SSPWDYNITR DPDRFPSEIA EAQCRHSGCI NAQGQEDGSM NSVPIQQEIL VLRREPQGCS NSFRLEKMLI KVGCTCVTPI VHHAA.

Biological Activity

The ED 50 as determined by its ability to induce of IL-6 production from NIH-3T3 cells, is 15.3-23 ng/ml.

Solubility

It is recommended to reconstitute the lyophilized Rat IL-17A/F in sterile water not more than 1mg/ml, which can then be further diluted to other aqueous solutions.

Precautions

IL 17A/F Rat is for research use only and not for use in diagnostic or therapeutic procedures.