



Interleukin-17F, rat recombinant (rrIL-17F)

Catalog No: 97245
Lot No: XXXXX
Source: *E. coli*
Synonyms: Cytokine ML-1, IL-17F, Interleukin-17F precursor, IL17F, ML1, ML-1

Background

IL-17F having an accession number of Q96PD4 is a cytokine that shares sequence similarity with IL17. IL-17F is expressed by activated T cells, and has been shown to stimulate the production of several other cytokines, including IL6, IL8, and CSF2/GM-CSF. IL-17F inhibits the angiogenesis of endothelial cells and induce endothelial cells to produce IL2, TGFB1/TGFB, and monocyte chemoattractant protein-1. IL-17F induces stromal cells to produce proinflammatory and hematopoietic cytokines. Intestinal IL17F gene expression is increased in active CD. IL-17A & IL-17F alleles influence the susceptibility to and pathophysiological features of ulcerative colitis independently. IL-17F and MIF gene polymorphisms are significantly associated with the development of functional dyspepsia. The initiation of IL-17F/IL-17R signaling pathway requires the receptor ubiquitination by TRAF6. IL-17F induces expression of IFN-gamma-inducible protein 10 (IP-10) by activating Raf1-mitogen-activated protein kinase 1/2-extracellular-regulated kinase 1/2-p90 ribosomal S6 kinase-cyclic AMP response element-binding protein signaling pathway.

Description

Interleukin-17F rat recombinant produced in *E. coli* is a homodimeric, non-glycosylated polypeptide chain containing a total of 270 amino acids and having a molecular mass of 30 kDa. Rat IL-17F is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

IL17F rat was lyophilized from a concentrated (1 mg/ml) solution containing no additives.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-17F in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL17F, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Rat IL17F 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

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MARRNPKVGL SALQKAGNCP PLEDNSVRVD IRIFNQNQGI SVPRDFQNRS SSPWDYNITR DPDRFPSEIA EAQCRHSGCI
NAQGQEDGSM NSVPIQQEIL VLRREPQGCS NSFRLEKMLI KVGCTCVTPV VHHA

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