

## Recombinant Human Interleukin-17F (rh IL-17F)

**Synonyms:** Cytokine ML-1, Interleukin-17F precursor

**Introduction:** IL-17F 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 GM-CSF. IL-17F inhibits the angiogenesis of endothelial cells and induces 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:** Recombinant human Interleukin-17F produced in E.Coli is a homodimeric, cysteine linked, non-glycosylated polypeptide chain containing 2 x 134 amino acids and having a total molecular mass of 30.1 kDa. The human IL-17F is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a 0.22 µm filtered solution in 25 mM sodium phosphate, 200 mM NaCl, pH 7.0. The aliquots/samples of 1µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh IL-17F in sterile H<sub>2</sub>O not less than 1mg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh IL-17F although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh IL-17F 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% HSS or BSA). Please prevent freeze-thaw cycles.

**Purity:** 95.0% as determined by SDS-PAGE silver stained gel.

**Endotoxicity:** The endotoxin level is less than 1 EU / µg determined by LAL method

**Amino acid sequence:** MRKIPKVGHT FFQKPESCPP VPGGSMKLDI GIINENQRVS MSRNIESRST SPWNYTVTWD PNRYPSEVVQ AQCRNLGCIN AQGKEDISMN SVPIQQETLV VRRKHQGC SV SFQLEKVLVT VGCTCVTPVI HHVQ

**Biological Activity:** rh IL-17F is fully biologically active tested by stimulation of IL-6 production by normal human dermal fibroblasts - NHDFs.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	11349170
<i>medium</i>	25 µg	Cat.N°	11349174
<i>large</i>	100 µg	Cat.N°	11349176
<i>x-large</i>	500 µg	Cat.N°	11349177

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Gladiolenweg 2; 26169 Friesoythe; Germany  
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, [info@immunotools.com](mailto:info@immunotools.com)  
[www.immunotools.com](http://www.immunotools.com)