Data Sheet (Cat.No.TMPY-01966)

TargetMol

IL-17F Protein, Mouse, Recombinant

General Information

Synonyms:	IL-17F;C87042;interleukin 17F
Protein Construction:	A DNA sequence encoding the Mouse IL17F (NP_665855.2) (Arg29-Ala161) was expressed with an initial Met. Predicted N terminal: Met
Species:	Mouse
Expression Host:	E. coli
Accession:	Q7TNI7-1
Molecular Weight:	15.02 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 95% as determined by SDS-PAGE.
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Interleukin-17F (IL-17F) is a cytokine that shares sequence similarity with IL17. The most notable role of IL-17 is its involvement in inducing and mediating proinflammatory responses. IL-17 is commonly associated with allergic responses. IL-17F is expressed by activated T cells and was expressed only in activated CD4+ T cells and activated monocytes. IL-17F has been shown to stimulate the production of several other cytokines, including IL6 and IL8. This cytokine is also found to inhibit the angiogenesis of endothelial cells and induce endothelial cells to produce

IL2, TGFB1/TGFB, and monocyte chemoattractant protein-1. Recombinant human IL-17F did not stimulate the proliferation of hematopoietic progenitors or the migration of mature leukocytes. However, it markedly inhibited the angiogenesis of human endothelial cells and induced endothelial cells to produce IL-2, TGF-{beta}, and monocyte chemoattractant protein-1. IL-17F stimulates the production of other cytokines and granulocyte colony-stimulating factor and can regulate cartilage matrix turnover. IL-17F stimulates PBMC and T-cell proliferation. It also functions in inhibiting angiogenesis By similarity. IL-17F plays a role in the induction of neutrophilia in the lungs and the exacerbation of antigen-induced pulmonary allergic inflammation.

Reference

Starnes T, et al.. (2001) Cutting edge: IL-17F, a novel cytokine selectively expressed in activated T cells and monocytes, regulates angiogenesis and endothelial cell cytokine production. J Immunol. 167(8): 4137-40.
Hymowitz SG, et al.. (2001) IL-17s adopt a cystine knot fold: structure and activity of a novel cytokine, IL-17F, and implications for receptor binding. EMBO J. 20(19): 5332-41.
McAllister F, et al.. (2005) Role of IL-17A, IL-17F, and the IL-17 receptor in regulating growth-related oncogene-alpha and granulocyte colony-stimulating factor in bronchial epithelium: implications for airway inflammation in cystic fibrosis. J Immunol. 175(1): 404-12.