

## Recombinant Mouse IL-17F (carrier-free)

<b>Catalog# / Size</b>	576108 / 500 µg
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interleukin-17F
<b>Description</b>	<p>IL-17F belongs to the IL-17 cytokine family which includes IL-17A, B, C, D, and E (also called IL-25). IL-17F shares the strongest homology to IL-17A. They share 50% amino acid sequence homology. Recently, an IL-17–IL-17F heterodimer was found to be expressed in Th17 cells together with IL-17 and IL-17F homodimers. <i>IL-17 and IL-17F</i> gene promoters share the same pattern of chromatin remodeling in differentiated Th17 cells. T cell populations in vitro and in vivo have shown different ratios of IL-17 and IL-17F expression. IL-17, IL-17F regulates proinflammatory gene expression in vitro. Studies in vivo using Il17a(-/-), Il17f(-/-), and Il17a(-/-)Il17f(-/-) mice showed that IL-17F played only marginal roles, if at all, in the development of delayed-type and contact hypersensitivities, autoimmune encephalomyelitis, collagen-induced arthritis, and arthritis in Il1rn(-/-) mice. In contrast, both IL-17F and IL-17A were involved in host defense against mucoepithelial infection by <i>Staphylococcus aureus</i> and <i>Citrobacter rodentium</i>. Additional studies <i>in vivo</i> have suggested a role for IL-17F in the induction of neutrophilia in the lungs and in the exacerbation of Ag-induced pulmonary inflammation.</p>

### Product Details

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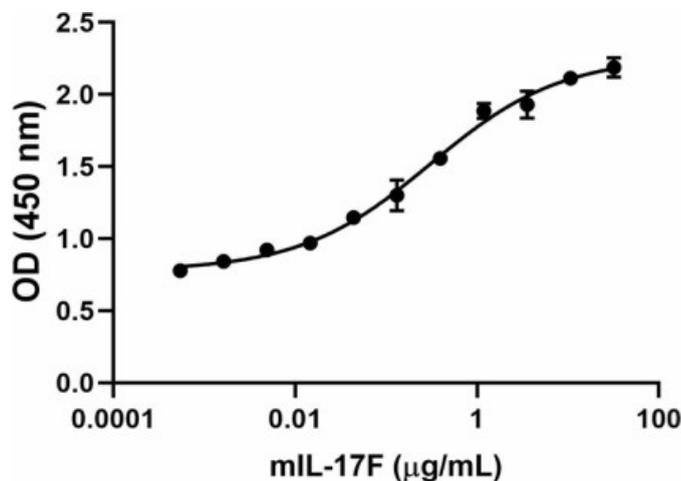
<b>Source</b>	Mouse IL-17F, amino acids Arg29-Ala161 (Accession # NM_145856) was expressed in <i>E. coli</i> .
<b>Molecular Mass</b>	The 134 amino acid recombinant protein has a predicted molecular mass of 15014 Da and contains Methionine as N-terminal. This protein exists as a disulfide-linked homodimer. The DTT-reduced protein migrates at approximately 15 kD by SDS-PAGE. The non-reduced protein migrates as a homodimer, at approximately 28 kD by SDS-PAGE.
<b>Purity</b>	>98%, as determined by Coomassie stained SDS-PAGE.
<b>Formulation</b>	0.22 µm filtered protein solution is in 10 mM NaH <sub>2</sub> PO <sub>4</sub> , 0.15 M NaCl, pH 7.2.
<b>Endotoxin Level</b>	Less than 0.01 ng per µg cytokine as determined by the LAL method.
<b>Concentration</b>	10 and 25 µg sizes are bottled at 200 µg/mL. 100 µg size and larger sizes are lot-specific and bottled at the concentration indicated on the vial. To obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.
<b>Storage &amp; Handling</b>	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to six months, or at -70°C or colder until the expiration date. For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored at -20°C or colder. Stock solutions can also be prepared at 50 - 100 µg/mL in appropriate sterile buffer, carrier protein such as 0.2 - 1% BSA or HSA can be added when preparing the stock solution. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. <b>Avoid repeated freeze/thaw cycles.</b>
<b>Activity</b>	Recombinant mouse IL-17 induces IL-6 in fetal mouse skin fibroblasts in a dose-dependent manner. The ED <sub>50</sub> for this effect is 0.2 - 0.8 µg/mL.
<b>Application</b>	<a href="#">Bioassay</a>
<b>Application Notes</b>	BioLegend carrier-free recombinant proteins provided in liquid format are shipped on blue-ice. Our comparison testing data indicates that when handled and stored as recommended, the liquid format has equal or better stability and shelf-life compared to commercially available lyophilized proteins after reconstitution. Our liquid proteins are verified in-house to maintain activity after shipping on blue ice and are backed by our <a href="#">100% satisfaction guarantee</a> . If you have any concerns, contact us at <a href="mailto:tech@biolegend.com">tech@biolegend.com</a> .

### Antigen Details

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<b>Structure</b>	Cytokine
<b>Distribution</b>	T cells, Th17 cells, memory CD4 T cells, innate immune cells, and epithelial cells.
<b>Interaction</b>	IL-17F might act primarily on parenchymal cells such as fibroblasts, epithelial cells, and endothelial cells.
<b>Ligand/Receptor</b>	IL-17RC, IL-17F can signal via the IL-17RA; however, with lower affinity than IL17A.
<b>Bioactivity</b>	IL-17F induces IL-6 and KC (CXCL1) production in mouse fibroblast and macrophages. IL-17F/IL-17R interaction stimulates granulopoiesis in mice. IL-17F homodimer via IL-17RA is a negative regulator of IL-17 production in T cells.
<b>Cell Sources</b>	T cells, Th17 cells, memory CD4 T cells, innate immune cells, and epithelial cells.
<b>Receptors</b>	IL-17RC, IL-17F can signal via the IL-17RA; however, with lower affinity than IL17A.
<b>Biology Area</b>	Cell Biology, Immunology, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Gene ID</b>	<a href="#">257630</a>

## Product Data



Recombinant mouse IL-17 induces IL-6 in fetal mouse skin fibroblasts in a dose-dependent manner. The ED<sub>50</sub> for this effect is 0.2 - 0.8 µg/mL

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