

**DESCRIPTION**

**Source** Chinese Hamster Ovary cell line, CHO-derived IL-17F protein  
Arg31-Gln163, with a C-terminal 6-His tag  
Accession # NP\_001248216.1

**N-terminal Sequence Analysis** Arg31

**Predicted Molecular Mass** 16 kDa

**SPECIFICATIONS**

**SDS-PAGE** 17-25 kDa, under reducing conditions

**Activity** Measured by its ability to induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells.  
The ED<sub>50</sub> for this effect is 5-40 ng/mL

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 200 µg/mL in PBS.

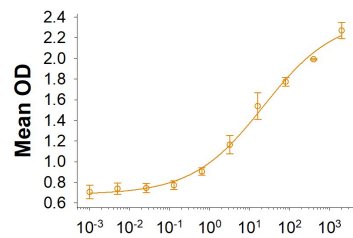
**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

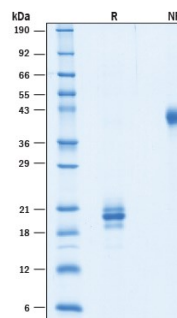
**DATA**

**Bioactivity**



Recombinant Cynomolgus Monkey/Rhesus Macaque IL-17F (Catalog # 10225-IL) induces IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells. The ED<sub>50</sub> for this effect is 5-40 ng/mL.

**SDS-PAGE**



2 µg/lane of Recombinant Cynomolgus/Rhesus Macaque IL-17F His-tag (Catalog # 10225-IL) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 17-25 kDa and 30-50 kDa, respectively.

**BACKGROUND**

The Interleukin 17 (IL-17) protein family, composed of six members (IL-17A through IL-17F), are secreted, structurally related proteins that share a conserved cysteine-knot fold near the C-terminus, but have considerable sequence divergence at the N-terminus. With the exception of IL-17B which exists as a non-covalently linked dimer, all IL-17 family members are disulfide-linked dimers. IL-17 proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions (1, 2). Cynomolgus IL-17F cDNA encodes a 163 amino acid (aa) protein with a putative 30 aa signal peptide. Mature cynomolgus IL-17F shares 96% and 100% aa sequence identity with human and rhesus macaque IL-17F, respectively. IL-17F is expressed in activated CD4<sup>+</sup> T-cells and activated monocytes. Five receptors (IL-17 RA-RE) have been identified. Although the ligands for IL-17 RD and RE are not known yet, it is reported that IL-17 RA binds IL-17A, and IL-17 RB binds IL-17B and IL-17E. IL-17 RC binds IL-17A and IL-17F with similarly high affinity and functions as a receptor for both IL-17A and IL-17F (3, 4). The biological activities mediated by IL-17F are similar to those of IL-17A. IL-17F stimulates production of IL-6, IL-8, G-CSF, and regulates cartilage matrix turnover by increasing matrix release and inhibiting new matrix synthesis (5). IL-17F also inhibits angiogenesis and induces production of IL-2, TGF-beta, and monocyte chemoattractant protein-1 in endothelial cells (6).

**References:**

1. Aggarwal, S. and A.L. Gurney (2002) *J. Leukoc. Biol.* **71**:1.
2. Moseley, T.A. *et al.* (2003) *Cytokine & Growth Factor Rev.* **14**:155.
3. Kuestner, R.E. *et al.* (2007) *J. Immunol.* **179**:5462.
4. Shen, F. & S. L. Gaffen (2008) *Cytokine* **41**:92.
5. Hot, A. and Miossec, P. (2011) *Ann. Rheum. Dis.* **70**:727.
6. Starnes, T. *et al.* (2001) *J. Immunol.* **167**:4137.