

DESCRIPTION

Source *E. coli*-derived rat IL-17F protein
Ala27-Ala161
Accession # NP_001015011.2

N-terminal Sequence Analysis Ala19

Structure / Form Disulfide-linked homodimer

Predicted Molecular Mass 15.1 kDa (monomer)

SPECIFICATIONS

Activity Measured by its ability to compete with immobilized rmlIL-17F for binding with rmlIL-17R in a functional ELISA.

Endotoxin Level <0.01 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in sterile 4 mM HCl.

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.

BACKGROUND

Interleukin-17F (also ML-1) is a 19 kDa member of the IL-17 family of cytokines. Members of this family are involved in tissue homeostasis and demonstrate a structural motif termed a cysteine knot that characterizes a large superfamily of growth factors. Although most cysteine knot superfamily members use three intrachain disulfide bonds to create a knot, IL-17 family molecules generate the same structural form with only two disulfide links (1, 2, 3, 4). Based on mouse, mature rat IL-17F is 133 amino acids (aa) in length (5, 6). Rat IL-17F is a presumably secreted, 38 kDa glycosylated disulfide-linked homodimer. It is also secreted as a 35 kDa disulfide-linked heterodimer with IL-17/17A (7, 8). The heterodimeric form represents about 30% of secreted IL-17F. Initially, IL-17F was also reported as IL-24. Since that time, the IL-24 designation has been reassigned to MDA-7, a member of the IL-10 family of molecules (note: IL-17E is synonymous with IL-25). Mature rat IL-17F shares 59% and 90% aa identical with mature human and mouse IL-17F, respectively; it also shows 55% aa identity to rat IL-17. Interspecies studies suggest rat IL-17F is produced by activated TH17-type CD4+ T cells, mast cells, basophils and monocytes (1, 3, 9), and is inducible through the interaction of TGF-β, IL-6 and IL-23 (9, 10, 11). Targets for IL-17F include respiratory epithelium, fibroblasts, macrophages and endothelial cells which produce proinflammatory cytokines such as GM-CSF, IL-6, IFN-γ, IP-10, MIP-1α and MCP-1 (2, 6, 12). This activity is found for both homodimeric and heterodimeric forms of IL-17F (7).

References:

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