
Recombinant Human Interleukin-17 (IL17A)

(Cat. No.: C021)

Background:

IL-17 is a potent proinflammatory cytokine produced by activated memory T cells. There are at least six members of the IL-17 family in humans and in mice.

The originally described IL-17 protein, now known as IL-17A, is a homodimer of two 136 amino acid chains, secreted by activated T-cells that act on stromal cells to induce production of proinflammatory and hematopoietic bioactive molecules. Today, IL-17 represents a family of structurally-related cytokines that share a highly conserved C-terminal region but differ from one another in their N-terminal regions and in their distinct biological roles. The six known members of this family, IL-17A through IL-17F, are secreted as homodimers. IL-17A exhibits cross-species bioactivity between human and murine cells.

Description:

Recombinant Human IL-17A produced in *E. coli* is a disulfide-linked homodimer of 31.2 kDa, consisting of two 137 amino acid residue non-glycosylated polypeptide chains.

Quality Control:

Biological Activity: The ED50 as determined by the dose-dependent induction of IL-6 in primary human foreskin fibroblasts was found to be approximately 2ng/ml, corresponding to a Specific Activity of 5.0×10^5 IU/mg.

Purity: Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel. **Amino-Acid Sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ile-Val-Lys-Ala.

Endotoxin: Less than 0.1ng/ μ g (1 IEU/ μ g) of rHuIL-17A.

Formulation: Lyophilized from a concentrated (1mg/ml) solution with 30mM Tris-HCl, pH8.0 and 150mM NaCl.

Storage: Lyophilized rHuIL-17A although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuIL-17A 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% HSA or BSA).

Please avoid freeze-thaw cycles. For laboratory in vitro research use only.

Reconstitution: It is recommended to reconstitute the lyophilized rHuIL-17A in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.