

Recombinant Murine Interleukin-17 (IL-17)

Certificate of Analysis and Data Sheet

➤ Source: E.coli	➤ Catalog No. CTK-378
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➤ **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.

As interleukin-17 shares properties with IL-1 and TNF-alpha, it may induce joint inflammation and bone and cartilage destruction. This cytokine is found in synovial fluids of patients with rheumatoid arthritis, and produced by rheumatoid arthritis synovium. It increases IL-6 production, induces collagen degradation and decreases collagen synthesis by synovium and cartilage and proteoglycan synthesis in cartilage. Interleukin-17 is also able to increase bone destruction and reduce its formation. Blocking of interleukin-17 with specific inhibitors provides a protective inhibition of cartilage and bone degradation

➤ **Description :**

Recombinant Murine IL-17 produced in E.Coli is a homodimeric, non-glycosylated polypeptide chain containing a total of 266 amino acids and having a molecular mass of 29,956 Dalton.

Recombinant Mouse Interleukin-17 is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

➤ **Formulation:**

Lyophilized from a concentrated (1mg/ml) solution containing no additives.

➤ **Solubility:**

It is recommended to reconstitute the lyophilized Recombinant Interleukin-17 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized Recombinant Mouse Interleukin-17 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Mouse Interleukin-17 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.

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) 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, Ala-Ala-Ile-Ile-Pro.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Mouse IL-17 is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant secretion of IL-6 by NIH 3T3 cells was found to be 1.0-10.0 ng/mL.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of mouse IL-17.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.942 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of IL-17 as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further manufacturing purposes.