

## Recombinant Mouse Interleukin 17A

**Cat. No.** IL17a-71M    **Lot. No.** (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant Murine Interleukin-17 produced in <i>E. Coli</i> is a homodimeric, non-glycosylated polypeptide chain containing a total of 266 amino acids and having a molecular mass of 29,956 Dalton. The IL-17 is purified by proprietary chromatographic techniques.                                                                                                                                                                               |
| <b>Species</b>             | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>         | IL17 is a proinflammatory cytokine produced by activated T cells. IL-17 regulates the activities of NF-kappaB and mitogen-activated protein kinases. Interleukin-17 can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). High levels of IL-17 are associated with several chronic inflammatory diseases including rheumatoid arthritis, psoriasis and multiple sclerosis. |
| <b>Amino Acid Sequence</b> | The sequence of the first five N-terminal amino acids was determined and was found to be, Ala-Ala-Ile-Ile-Pro.                                                                                                                                                                                                                                                                                                                                       |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Purity</b>              | Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                              |
| <b>Formulation</b>         | Lyophilized from a concentrated (1mg/ml) solution containing no additives.                                                                                                                                                                                                                                                                                                                                                                           |

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|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Solubility</b>          | It is recommended to reconstitute the lyophilized Interleukin 17 in sterile 18MΩ-cm H <sub>2</sub> O not less than 100g/ml, which can then be further diluted to other aqueous solutions.                                                                                                                                                                                                   |
| <b>Biological Activity</b> | The ED <sub>50</sub> as determined by the dose-dependant secretion of IL-6 by NIH 3T3 cells was found to be 1.0-10.0 ng/mL.                                                                                                                                                                                                                                                                 |
| <b>Protein Content</b>     | 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. |
| <b>Storage</b>             | Lyophilized Interleukin-17 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL17 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 prevent freeze-thaw cycles.                                               |

## GENE INFORMATION

|                       |                                               |
|-----------------------|-----------------------------------------------|
| <b>Gene Name</b>      | IL17a interleukin 17A [ <i>Mus musculus</i> ] |
| <b>Synonyms</b>       | IL17a; interleukin 17A; IL17; Ctla8; Ctla-8   |
| <b>Gene ID</b>        | 16171                                         |
| <b>mRNA Refseq</b>    | NM_010552                                     |
| <b>Protein Refseq</b> | NP_034682                                     |

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|----------------------------|----------------------------------------|
| <b>UniProt ID</b>          | Q62386                                 |
| <b>Chromosome Location</b> | 1 A                                    |
| <b>Pathway</b>             | Cytokine-cytokine receptor interaction |
| <b>Function</b>            | cytokine activity                      |

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