



PRODUCT DATA SHEET

Product: IL-15 (recombinant rat)

Cat. No.: BC-287 (10 µg)

Synonyms:

Interleukin-15 precursor

Background:

Interleukin (IL)-15 is a pleiotropic pro-inflammatory cytokine that is expressed in several inflammatory disorders, including rheumatoid arthritis, psoriasis and pulmonary inflammatory diseases. IL-15 promotes activation of T cells, neutrophils and macrophages, and is critical to dendritic cell function in several model systems. Recent emerging data suggest that IL-15 may serve as a useful therapeutic target across a range of disease states. Advances in the past year highlight the beneficial effect of IL-15 neutralization in models of psoriasis and diabetes. Further evidence for IL-15 expression and effector function has emerged across a range of rheumatic disorders, including juvenile inflammatory arthritis, rheumatoid arthritis and Kawasaki disease. Interleukin-15 (IL-15) is a gamma-common cytokine, which plays an important role in the development, survival and proliferation of NK, NK T and CD8+ T cells.

Description:

Recombinant Rat IL-15 produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 115 amino acids and having a molecular mass of 13,533 Daltons. Recombinant Rat IL-15 is purified by proprietary chromatographic techniques.

Amino Acid Sequence:

The sequence of the first five N-terminal amino acids was determined to be Met-Asn-Trp-Ile-Asp.

Origin:

Produced in *E. Coli*.

Format:

Sterile filtered white powder. Lyophilized from a 1 mg/mL solution with no additives.

Purity:

Greater than 98.0% as determined by RP-HPLC, anion-exchange FPLC, reducing and non-reducing SDS-PAGE Silver Stained gel.

Dimers and aggregates: less than 1% as determined by silver-stained SDS-PAGE.

Endotoxin:

Less than 0.1 ng/µg (IEU/µg) of Recombinant Rat IL-15.

Reconstitution:

Reconstitute in sterile 18 MΩ-cm H₂O at not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.

Biological Activity:

Recombinant Rat IL-15 is fully biologically active when compared to standard. The ED₅₀ as determined by the dose-dependant stimulation of the proliferation of CTLL-2 was found to be less than 0.5 ng/mL, corresponding to a specific activity of 2 x 10⁵ IU/mg.

Storage:

Lyophilized Recombinant Rat IL-15, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Recombinant Rat IL-15 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). Avoid repeated freeze/thaw cycles.

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.