



PRODUCT DATA SHEET

Product: IL-9 (recombinant human)

Cat. No.: BC-282 (10 µg)

Synonyms:

Interleukin-9 precursor, T-cell growth factor P40, P40Cytokine

Background:

Interleukin-9 (IL-9) is known to regulate many cell types involved in T-helper type 2 responses classically associated with asthma, including B- and T-lymphocytes, mast cells, eosinophils and epithelial cells. Growing evidence obtained from human genomic analysis and antigen-challenged transgenic mice suggest that IL-9 is a candidate factor in immunoglobulin E (IgE) production and thus is thought to be associated with bronchial inflammation and bronchial hyper-responsiveness (BHR).

Description:

Recombinant human IL-9 produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 127 amino acids and having a molecular mass of 14,004 Dalton.

Amino Acid Sequence:

The sequence of the first five N-terminal amino acids was determined to be Met-Gln-Gly-Cys-Pro.

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 human IL-9.

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 human IL-9 is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of human MO7e cells is < 0.2 ng/mL, corresponding to a specific activity of 5 x 10⁶ IU/mg.

Storage:

Lyophilized recombinant human IL-9, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution recombinant human IL-9 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).

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.