



COSMO BIO CO., LTD.

## 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 H<sub>2</sub>O at not less than 100 ug/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 ED<sub>50</sub> as determined by the dose-dependant stimulation of human MO7e cells is < 0.2 ng/mL, corresponding to a specific activity of 5 x 10<sup>6</sup> 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.



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